I'm not robot	reCAPTCHA
Continue	

How to use nunchuck on dolphin emulator android

```
Primary game controller for the Nintendo Wii Wii RemoteWii RemoteW
chip (16.3 kilobytes)Sound1 speakerInput Accelerometer Gyroscope (with Wii MotionPlus adapter or Wii Remote Plus) Infrared sensor 8 Digital buttons(A, B, -, +, HOME, 1, 2, POWER) D-pad Connectivity Bluetooth Accessory connector port (400 kHz I<sup>2</sup>C) Power2 × AA batteryPredecessorGameCube controllerSuccessorWii Remote Plus The Wii
 Remote,[a] also known colloquially as the Wiimote, is the primary game controller for Nintendo's Wii home video game console. An essential capability of the Wii Remote is its motion sensing capability, which allows the user to interact with and manipulate items on screen via gesture recognition and pointing which is used for the console, using
 accelerometer and optical sensor technology. It is expandable by adding attachments the Wii Console is the Nunchuk, which complements the Wii Remote by providing functions similar to those in gamepad controllers. Some other attachments include the Classic Controller, Wii Zapper, and the Wii Wheel, originally used
for the racing game Mario Kart Wii. The controller was revealed at both E3 2005 and E3 2006 and the Tokyo Game Show on September 14, 2005, with the name "Wii Remote" announced April 27, 2006. It received much attention due to its unique features, not supported by other gaming controllers. The Wii's successor console, the Wii U, supports the
Wii Remote and its peripherals in games where use of the Wii U GamePad is not mandated. History Development of a motion-enabled controller began when development of a motion-enabled controller began when development of the Wii console started in 2001. In that year, Nintendo licensed a number of motion-enabled controller began when development of the Wii Console started in 2001. In that year, Nintendo licensed a number of motion-enabled controller began when development of the Wii Console started in 2001. In that year, Nintendo licensed a number of motion-enabled controller began when development of the Wii Console started in 2001.
sensing computer mice.[5] Gyration had previously pitched their idea and patents of a motion controller for it,[5] which eventually became the "Gyropod", a more traditional gamepad which allowed its right half to break away for
motion-control.[5] At this point, Gyration brought in a separate design firm, Bridge Design, to help pitch its concept to Nintendo.[7] Under requirement to "roughly preserve the existing Game Cube [sic] button layout", it experimented with different forms "through sketches, models and interviewing various hardcore gamers".[7] By "late 2004, early
2005", however, Nintendo had come up with the Wii Remote's less traditional "wand shape", and the design of the Nunchuk attachment.[8] Nintendo had also decided upon using a motion sensor, infrared pointer, and the layout of the buttons,[8] and by the end of 2005 the controller was ready for mass production.[8] During development of the Wii
 Remote, video game designer Shigeru Miyamoto brought in mobile phones and controllers for automotive navigation systems for inspiration, eventually producing a prototype that resembled a cell phone. [8] Another design featured both an analog stick and a touchscreen, but Nintendo rejected the idea of a touchscreen on the controller, "since the
portable console and living-room console would have been exactly the same".[8] Coincidentally, this idea would later be implemented on the Wii Vis GamePad controller, as well as the Nintendo Switch. Sources also indicate that the Wii Remote was originally in development as a controller for the Nintendo GameCube, rather than the Wii. Video game
 developer Factor 5 stated that during development of launch title Star Wars Rogue Squadron II: Rogue Leader, it had an early prototype of a motion-sensing controller.[9] Video game journalist Matt Casamassina, from gaming website IGN, stated that he believed that Nintendo had planned to release the Wii Remote for the GameCube, noting that
 "Nintendo said that it hoped that GCN could enjoy a longer life cycle with the addition of top-secret peripherals that would forever enhance the gameplay experience."[10] He suggested that Nintendo may have wanted to release the Wii Remote with a new system, instead of onto the GameCube, as "[the] Revolution addresses one of the GameCube's
biggest drawbacks, which is that it was/is perceived as a toy."[10] Images of the GameCube prototype of the Wii Remote, including the Nunchuk, were found online in October 2018 when one of the prototypes was made available through an online auction.[11] Counterfeit units As the Wii gained in popularity, reports surfaced of counterfeit Wii
 Remotes entering circulation. Although these devices may provide the same functionality as official Wii Remotes, the build quality is typically inferior and components such as the rumble pack and speaker are noticeably different. It is also unclear whether official accessories operate correctly with counterfeit units due to the differences in internal
components.[12][13] Design Demo Wii Remote shown at a Nintendo event at the Hotel Puerta America The Wii Remote assumes a one-handed remote controllers of previous gaming consoles. This was done to make motion sensitivity more intuitive, as a remote design is fitted perfectly for
pointing, and in part to help the console appeal to a broader audience that includes non-gamers. The body of the Wii Remote model number is RVL-003, a reference to the project codename "Revolution". The controller communicates wirelessly with the
console via short-range Bluetooth radio, with which it is possible to operate up to four controllers at a distance of up to five meters (16 ft) from Wii Remote communicates with the Sensor Bar [15] The controller
can be used in either hand; it can also be turned horizontally and used like a Famicom/NES controller, or in some cases (including Excite Truck, Sonic and the Secret Rings, Mario Kart Wii, and Sonic & Sega All-Stars Racing) a steering wheel. It is also possible to play a single-player game with a Wii Remote in each hand, as in the Shooting Range
game contained in Wii Play. At E3 2006, a few minor changes were made to the controller from the design presented at the Game Developer's Conference. The controller was made slightly longer, and a speaker was added to the face beneath the center row of buttons. The B button became more curved resembling a trigger. The "Start" and "Select"
buttons were changed to plus + and minus -, and the b and a buttons, while also evoking the keypad of typical television remotes. Also, the symbol on the Home button was changed from a blue dot to a shape resembling a home/house, the shape of Power was made circular
rather than rectangular, and the blue LEDs indicating player number are now labeled using 1 to 4 small raised dots instead of numbers 1 to 4, resembling the dots used to mark the four controller ports of the GameCube console. The Nintendo logo at the bottom of the controller face was replaced with the Wii logo. Also, the expansion port was
redesigned, with expansion plugs featuring a smaller snap-on design.[16] The Wii Remote had the capability of turning the main console's power on or off remotely with a power button, further reinforcing the impression that it looks like a television remote. The blue LEDs also indicate the battery's state: on pressing any button (other than the power button) further reinforcing the impression that it looks like a television remote.
button) while the controller is not being used to play games, four LEDs flash to indicate full battery, three for 75%, two for 50%, and one for 25% life remaining. Similarities have been noted between the Wii Remote and an early Dreamcast controller prototype.[17] In the Red Steel trailer shown at E3 2006, the Wii Remote had a smaller circular
shaped image sensor instead of the larger opaque IR filters shown on other versions.[18] In the initial teaser video that revealed the controller at Tokyo Game Show 2005, the 1 and 2 buttons were labeled X and Y.[19] Strap New strap (left) next to the original strap design The Wii Remote has a wrist strap attached to the bottom to prevent it from
flying away during game action if not held securely. The wrist strap is tied with a cow hitch knot. Every Wii game contains safety warnings concerning wrist strap use during its startup sequence [20] and also at or near the beginning of its instruction booklet (even if the game does not use motion controls). [21] The latter is a word-for-word
reproduction of a standard wrist strap warning notice established by Nintendo.[22] The wrist strap is also used to restrain the Nunchuk's connector by its hook,[23] safely slowing any sudden movement of the Nunchuk's connector by its hook,[23] safely slowing any sudden movement of the Nunchuk's connector by its hook,[23] safely slowing any sudden movement of the Nunchuk's connector by its hook,[23] safely slowing any sudden movement of the Nunchuk's connector by its hook,[23] safely slowing any sudden movement of the Nunchuk's connector by its hook,[23] safely slowing any sudden movement of the Nunchuk's connector by its hook,[23] safely slowing any sudden movement of the Nunchuk's connector by its hook, [23] safely slowing any sudden movement of the Nunchuk's connector by its hook, [23] safely slowing any sudden movement of the Nunchuk's connector by its hook, [23] safely slowing any sudden movement of the Nunchuk's connector by its hook, [23] safely slowing any sudden movement of the Nunchuk's connector by its hook, [23] safely slowing any sudden movement of the Nunchuk's connector by its hook, [23] safely slowing any sudden movement of the Nunchuk's connector by its hook, [23] safely slowing any sudden movement of the Nunchuk's connector by its hook, [23] safely slowing and slowing any slowing and slowing any slowing and slowing any slowing and slowing and slowing any slowing any slowing and slowing any slowing and slowing any slowing and slowing any slowing and slowing any slowing and slow
whole or part, that are played by moving the Wii Remote in such a way that would be hindered by a wrist strap, such as Let's Tap, most House Party games in Wii Play Motion. In such games or game modes, on-screen prompts, as well as instruction booklet text, will specifically state that they must be played
without the wrist strap.[24] Video game web site IGN reported that the strap failure. In response, Nintendo has posted
guidelines on proper use of the strap and the Wii Remote. [26] On December 8, 2006, units with thicker straps began to appear in some areas of the world. [27] On December 15, 2006, Wintendo denied reports of a Wii wrist straps free of
charge.[28] The U.S. Consumer Product Safety Commission became involved in the "replacement program".[29] The old 0.6 mm (0.024 in) diameter version. Nintendo's online "Wrist Strap Replacement Request Form" allows owners to receive up to four free straps when a Wii serial number and
shipping details are provided. On August 3, 2007, a new wrist strap was found to be supplied, with a lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the strap from working loose during prolonged play;[30] the lock clip instead of a movable slide to prevent the slide to prevent the strap from working loose during prolonged play.
the sync button through the new jackets and battery covers. Jacket Jacket on Wii Remote Silicone sleeve wraps around the Wii Remote to provide a better grip, and cushioning to protect the Wii Remote if dropped. Nintendo started
including the jacket with the controller on October 15, 2007. The safety jacket included with every Wii Remote is usually translucent. However, for black Wii Remote and red Wii Remote sand red Wii Remote is usually translucent. However, for black Wii Remote sand red Wii Remote is usually translucent. However, for black Wii Remote sand red Wii Remote is usually translucent.
 according to Nintendo. [32] Colors At the E3 2006 trade show, Nintendo displayed white, red, silver, lime green, and black versions. [33] The Wii console and controllers launched in only white versions, with Shigeru Miyamoto commenting that new hues
would be provided when supplies became available.[34] On June 4, 2009, Nintendo revealed that it would release black versions of the Wii, Wii Remote includes a matching solid-black Wii Remote Jacket.[35][36] In addition, Club Nintendo in Japan held a contest
between June 25, 2009 and August 31, 2009 wherein members who purchased and registered a copy of Wii Sports Resort would be entered into a draw to win one of 5,000 blue controller sets. Each set included a Wii Remotes.[37][38]
For North America, Nintendo announced on September 1, 2009 that black versions of the Wii Remote and Wii MotionPlus was released as a bundle, and the black Nunchuk was released as a standalone purchase.[40] Blue
and pink Wii Remotes were released in Japan on December 3, 2009.[41] In North America, the blue and pink Wii Remotes were released February 14, 2010 in a bundle with a standard white Wii MotionPlus.[42] In Australia, the black, blue and pink versions of the Wii Remotes were released on February 25, 2010. In addition, the black Nunchuk and
black Wii MotionPlus were also released on that day as well.[43] When Nintendo released the Wii Remote Plus in late 2010, which featured built-in Wii MotionPlus technology, it would initially be available in the same four standard Wii Remote Colors, plus a special red variant that was included in red Wii consoles manufactured to celebrate the 25th
anniversary of the Mario series. In the years that followed, Nintendo released more Wii Remote's Home Menu Accessed with the Wii Remote's Home Menu displays information about the controller(s) currently being used, and allows the user to configure certain options. At
the bottom of the menu screen, the battery life of all connected controllers is displayed. Below that is a bar labeled Wii Remote Settings. Selecting it brings users to an options screen where they can control the audio output volume, rumble settings, and reconnect the controllers, for example to connect Wii Remotes through one-time synchronization.
Depending on when the Home Menu is accessed, a different number of buttons are displayed. Wii Menu: No matter when the menu is accessed, the Wii Menu, where users can choose another channel. When playing certain
Virtual Console titles, with the exception of the Nintendo 64 and Neo Geo, this will also create a suspend point. Reset button is available. This performs a soft reset of that particular application, for example returning a game to its title screen or the loading screen of a Wii Menu
channel, the same as what would happen if the player were to press the console's physical reset button. Operations Guide button appeared on the Home Menu.
The guide accessed acts as an instruction manual for the game being played. The Home Menu can be compared to the Xbox 360's in-game menu (accessed by pressing the "Xbox" button), or the PlayStation 3's mid-game XMB. It may be accessed under most circumstances during Wii operation, which pauses the on-screen action. Otherwise, a "home'
symbol with a no symbol on it appears onscreen. It is also inaccessible during Nintendo GameCube software. Features Sensing Sensor Bar highlighting IR LEDs taken with a camera sensitive to infrared. The lights coming from the edges of the bar are not visible to the human eye, just Wii
Remotes and any other equipment that can sense IR light sources, including most digital cameras. The Wii Remote has the ability to sense acceleration along three axes through the use of Analog Devices MEMS-based three-dimensional accelerometers.[15][44] The Wii Remote also has a PixArt optical sensor that allows it to determine where it is
pointing.[45] Unlike a light gun that senses light from a television screen, the Wii Remote senses light from the console's Sensor Bar (RVL-014), which allows consistent usage not influenced by the screen used. The Sensor Bar (RVL-014), which allows consistent usage not influenced by the screen used. The Sensor Bar (RVL-014), which allows consistent usage not influenced by the screen used. The Sensor Bar is about 20 cm (7.9 in) long and has ten infrared LEDs, five at each end of the bar.[46] The LEDs furthest from the center are
pointed slightly outwards, the LEDs closest to the center are pointed slightly inwards, while the rest are pointed straight forward. The Sensor Bar's cable is 353 cm (11 ft 7 in) in length. The bar may be placed above or below the television is placed
on. The Remote should be pointed approximately towards the Sensor Bar; precise pointing is not necessary so long as it is within the limited viewing angle of the Wii Remote to be used as an accurate pointing device up to 5 meters (approx. 16 ft) away from the bar.[14] The Wii Remote to be used as an accurate pointing is not necessary so long as it is within the limited viewing angle of the Sensor Bar; precise pointing is not necessary so long as it is within the limited viewing angle of the Wii Remote to be used as an accurate pointing is not necessary so long as it is within the limited viewing angle of the Wii Remote to be used as an accurate pointing is not necessary so long as it is within the limited viewing angle of the Wii Remote to be used as an accurate pointing is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing angle of the Wii Remote is not necessary so long as it is within the limited viewing and limited viewin
is used to locate the Sensor Bar's points of light in the Wii Remote's field of view. The light emitters in the Sensor Bar is focused onto the image sensor. The second distance "m" between the two clusters of light emitters in the Sensor Bar is a fixed
distance. From these two distances m and mi, the Wii CPU calculates the distance between the Wii Remote and the Sensor Bar using triangulation.[47] Rotation of the Wii Remote with respect to the ground can also be calculated from the relative angle of the two dots of light on the image sensor.[48] Games can be programmed to sense whether the
image sensor is covered, which is demonstrated in a microgame featured in launch title WarioWare: Smooth Moves, where if the player does not uncover the sensor Bar is required when the Wii Remote is controlling up-down, left-right motion of a cursor or reticle on the TV
screen to point to menu options or objects such as enemies in first-person shooters. Some Wii games that depend on infrared pointing, such as The Conduit, allow the player to calibrate the Wii Remote and the Sensor Bar,[49] the Wii
 Remote can also control slow forward-backward motion of an object in a 3-dimensional game. [50] Rapid forward-backward motion, such as punching in a boxing game, is controlled by the acceleration sensors. Using these acceleration sensors (acting as tilt sensors), the Wii Remote can also control rotation of a cursor or other objects. [51] The use of
 an infrared sensor to detect position can cause some detection problems in the presence of other infrared sources, such as incandescent light, which emit little to no infrared light, around the Wii.[52] Innovative users have used other sources of IR light, such as a pair of
flashlights or a pair of candles, as Sensor Bar substitutes.[53] The Wii Remote picks up traces of heat from the sensor, then transmits it to the Wii Remote is
pointing and its physical location relative to the light sources. There is no way to calibrate the position of the cursor relative to where the user is pointing the controller without the two stable reference sources of light provided by the Sensor Bar or substitutes. Third-party wireless sensor bars have also been released, which have been popular with
users of Wii emulators since the official Sensor Bar utilizes a proprietary connector to connect to the Wii console. The position and motion tracking of the Wii Remote allows the player to mimic actual game actions, such as swinging a sword or aiming a gun, instead of simply pressing buttons. An early marketing video showed actors miming actions
such as fishing, cooking, drumming, conducting a musical ensemble, shooting a gun, sword fighting, and performing dental surgery. [54] The LEDs can be seen by some digital cameras, phone cameras, and other devices with a wider visible spectrum than the human eye. Controller feedback The Wii Remote provides basic audio and rumble (vibration)
functionality, but the Nunchuk does not. At the 2006 E3 press conference, it was revealed that the Wii Remote and television was altered as the
bow shot to give the impression of the arrow traveling away from the player.[55] In addition to reproducing certain in-game sound effects that reflect the on-screen action, the Wii Remote speaker can also function as a voice receiver through which non-player characters can speak to the player with long-distance telecommunication, featured in games
like Red Steel, Real Heroes: Firefighter and GoldenEye 007.[56] Some party games and hotseat multiplayer games also utilize the speaker to indicate changes between player turns. The volume can be changed or muted with the "Home" button and selecting the corresponding controller icon at the bottom of the screen;[57] if the speaker is muted, any
sounds intended to be emitted from the speaker will come from the television in most cases. The rumble feature can also be switched on or off using the Home Menu.[57] Memory The Wii Remote contains a 16 KiB EEPROM chip of which a section of 6 kilobytes can be read and written to by the host.[52][58] Part of this memory is available to store up
to ten Mii avatars, which can be transported to use with another Wii console (but it can be used to upload Miis to the Mii Parade and keep it on the console, and then moving from remote to the console)). 4,000 bytes are available for game use before the Mii data. Pokémon Battle
Revolution and Super Swing Golf also use this memory. This function is also used in Super Smash Bros. Brawl, allowing the user to save controller configuration data to the Wii Remote. [59] Monster Hunter Tri also uses this function by allowing players to save their profiles to the Wii Remote. Pokémon Rumble uses this section to store Pokémon. Club
Penguin: Game Day! uses this to store the player's penguin avatar.[60] Power source The Wii Remote uses two AA size alkaline batteries as a power source, which can power a Wii Remote for 60 hours using both accelerometer functionality.[52] In May 2013, Nintendo announced a
rechargeable battery and dock accessory, and various third-party manufacturers market charging solutions for the controller (see Wii Remote's expansion port is unsuitable for internal battery chargeable battery charges).[61] The only type of (externally chargeable battery chargeable battery charges).
 supported is nickel-metal hydride (NiMH).[63] A 3300µF capacitor provides a temporary source of power during quick movements of the Wii Remote is not used for more than 5 minutes, such as when the player is using a GameCube controller, it will shut off, and
can be re-activated by pressing any button (this was also the case when using a now discontinued video-on-demand service). Games are able to determine and react to the current battery life of Wii Remote Plus Wii Remote Plu
Remote Plus (left) & Wii Remote with Motion Plus accessory (right) Manufacturer Nintendo Release date AU: October 28, 2010 EU: November 5, 2010 Input Accelerometer Gyroscope Infrared sensor Digital buttons (A, B, -, +, HOME, 1, 2, Power) D-pad Connectivity Bluetooth Accessory connector port
Power2 × AA BatteryPredecessorWii U GamePad and Wii U Pro Controller In September 2010, rumors were circulating of a Wii Remote Plus". Nintendo initially declined to comment, but later announced
the device on September 29, 2010, confirming it to be a Wii Remote with MotionPlus built in, allowing players to use peripherals like the Wii Remote Wii Remote Wii Remote Plus competed with Microsoft Corporation's
Kinect and Sony Computer Entertainment's PlayStation Eye motion controllers, respectively. Nintendo later announced that the remote would be available in White, black, blue and pink. It was released in Australia on October 28, 2010, in Europe on November 5, 2010, in North America on November 7, 2010 and in Japan on
November 11, 2010.[65] Other colors The limited edition of The Legend of Zelda: Skyward Sword was bundled with a gold-colored Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to being available in the four standard Wii Remote Plus In addition to be a facility of the four standard Wii Remote Plus In addition to be a facility of the four standard Wii Remote Plus In addition to be a facility of the four standard Wii Remote Plus In addition to be a facility of the fa
red Wii Remote Plus would also be bundled with European copies of Wii Play: Motion,[67] which is replaced with a black one in other regions. A red Wii Remote Plus with the Hylian Crest superimposed over its speaker would
be released alongside The Legend of Zelda: Skyward Sword. [68] [69] It was available as part of a bundle with Skyward Sword for a limited time. [71] In 2012, the Wii Remote Plus was reissued, and branded for the Wii U, the Wii's successor. Another
sync button on the battery cover was added, allowing users to sync without removing the battery cover. A year later, Nintendo began releasing Wii Remote Plus controllers that are themed after Mario characters, starting with Mario and Luigi on November 1, 2013,[72] to accompany the release of the Wii U Deluxe set. A few months later, Nintendo
(bottom) connector. The Wii Remote has an expansion port at the bottom which allows various functional attachments to be added. The connector, and any accessories that attach to it, use a 400 kHz I<sup>2</sup>C protocol. This expandability is similar to that available with the port on the Nintendo 64 controller. There is a female connector on Wii remotes, to
 which expansions with a male connector can be connected. The multiple kinds of controllers that can connect to the Wii Remote make it into a more versatile control schemes. Various racing games such as Mario Kart Wii and a few Need for Speed video games, as well as
 some fighting games like Super Smash Bros. Brawl, Tatsunoko vs. Capcom: Ultimate All-Stars and the Naruto: Clash of Ninja Revolution trilogy take advantage of the versatility the expansion port confers to offer multiple control schemes to suit different kinds of players. Nunchuk Wii NunchukGenerationSeventh generationEighth generationRelease
dateNA: November 19, 2006JP: December 2, 2006AU: December 3, 2006EU: December 3, 2006AU: December 4, 2006EU: December 3, 2006EU: December 4, 2006EU: December 5, 2006EU: December 6, 2006EU: December 8, 2006E
1.2 m (3.5 to 4 feet) long. Its appearance when attached resembles the nunchaku weapon, hence the name. It also resembles the middle handle of the Nintendo 64 controller. Like the controllers of the Nintendo 64 controllers of the Nintendo 64 controllers.
buttons (a last-minute modification changed the two triggers to one trigger and a C button, as described below). It works in tandem with the main controller in many games. Like the Wii Remote, the Nunchuk also provides a three-axis accelerometer from STMicroelectronics for motion-sensing and tilting, but lacks any feedback features.[44] The
presence of a motion sensor in the Nunchuk allows the Wii controls for Wii Sports or dual wield combat in some hack and slash games, such as Prince of Persia: Rival Swords. Despite having fewer buttons, the Nunchuk can
also be used as a controller itself, a feature that is leveraged by Opoona, Bust-A-Move Bash! and SpeedZone. This allows two players to share a single Wii controller, enabling the multiplayer modes of Bash! and SpeedZone. This allows two players to share a single Wii controller, enabling the multiplayer modes of Bash! and SpeedZone.
comes bundled with the Wii console. Additional Wii Remote units are sold separately without the Nunchuk.[75][76] The two shoulder buttons, formerly named Z1 and Z2 respectively, have been reshaped and renamed from the Game Developers Conference on. The circular top shoulder buttons, now called C, is much smaller than the lower rectangular
shoulder button, now called Z.[77] The body of the Nunchuk is 113 mm (4.4 in) long, 38 mm (1.5 in) wide, and 37 mm (1.5 in) thick.[15] The connected to any microcontroller capable of I<sup>2</sup>C (e.g., Arduino's Atmel AVR), where the accelerometer, joystick and buttons data may be accessed.
Todbot has created the Wiichuck, an adapter to facilitate connecting the Nunchuk to an Arduino board. [79] In 2008, wireless Nunchuks became available from third party providers, not requiring the cord that links the Wii Remote with the Wii Nunchuk is generally available in white and black. [36][39] Cyan-colored Nunchuks were
available in Japan as a prize for a contest used to promote Wii Sports Resort.[37] Red Nunchuks are bundled with the red Mario anniversary Wii console[66] and Wii Mini. A gold Nunchuk was offered to Nintendo Club members for a limited time to complement Skyward Sword's gold Wii Remote Plus.[71] Classic Controller Main article: Classic
Controller Original Classic Controller Pro. At the 2006 Electronic Entertainment Expo Nintendo introduced the Classic Controller, which plugs into the Wii Remote via a cord in a similar fashion to the Nunchuk.[15] Unlike most accessories, the
Classic Controller largely usurps the Remote's buttons duplicated on the Controller and where applicable retains its pointing-device functionality. It can also still be used as a valid, active controller by another player in multiplayer modes of
games like Bust-A-Move Bash! and SpeedZone. The Classic Controller for the Super Nintendo Entertainment System, being the same location. It also contains two analog sticks and two extra shoulder buttons used to replicate additional
components found on the Nintendo GameCube controller. The controller to play, being optimized for the Classic Controller.
MotionPlus Main article: Wii MotionPlus Wii MotionPlus is an expansion device that allows the Wii Remote to more accurately capture complex motion. Incorporated with a custom version of the Wii Remote The Wii MotionPlus affixes directly to the Wii Remote expansion port, extending
the length of the controller body by approximately 4 centimetres (1.6 in).[83] The Wii MotionPlus uses a tuning fork gyroscope[84] which supplements the accelerometer and Sensor Bar capabilities of the Wii Remote, enabling controller motions to be rendered identically on the screen in real time, according to Nintendo.[85] It is sold separately, and
also included in bundles with some MotionPlus compatible games such as Nintendo's Wii Sports Resort and Ubisoft's Red Steel 2.[81][82] Black Wii Remotes bundled with the MotionPlus add-on were released in Europe in November 2009. Wii Vitality Sensor The Wii Vitality Sensor was a cancelled peripheral; a fingertip pulse oximeter sensor that
connected through the Wii Remote. According to Nintendo, the device "will initially sense the user's pulse and a number of other signals being transmitted by their bodies, and will then provide information to the users about the body's inner world." The Wii Vitality Sensor was announced by President and CEO Satoru Iwata at Nintendo's E3 2009
media briefing on June 2, 2009. No specific applications were revealed for the device, but when presenting the device are suggested that video games may soon be used for relaxation. [86][87] According to Nintendo of America president Reggie Fils-Aime, more details concerning the Wii Vitality Sensor were to be revealed during E3 2010, although
in the event the device was not mentioned.[88] Reggie told GameTrailers, "(E3) was not the kind of environment for a game based on relaxation", and said that they were saving news on the device for another time and place.[89] At E3 2010, Ubisoft introduced their own pulse oximeter sensor, "Innergy".[90] At E3 2011, Nintendo announced more
 about the Wii Vitality Sensor. Shigeru Miyamoto said that the Wii Vitality Sensor has a difficult time performing consistently across a variety of situations but still may be released.[91] On July 5, 2013, Satoru Iwata disclosed that the Wii Vitality Sensor project had been cancelled due to its lack of widespread compatibility, with Nintendo finding that
the device failed to work with approximately 10% of people it was tested on.[92] noting that the device "was of narrower application than we had originally thought."[93] Iwata also mentioned the possibility of returning to the project in the future, when the technology allows for at least a 99.9% success rate.[92] Accessories Wii Zapper Wii Zapper
with Wii Remote and Nunchuk insertedMain article: Wii Zapper The Wii Remote and Nunchuk, and contains a trigger that actuates the Wii Remote and Nunchuk are in the
shell. The name is a reference to the NES Zapper light gun for the Nintendo Entertainment System. According to an interview with Shigeru Miyamoto, the idea of a Zapper-type expansion formed when the Wii Remote was first created. He expressed that "What we found is that the reason we wanted to have a Zapper is when you hold a Wii Remote, i
can be difficult for some people to keep a steady hand. And holding your arm out like that can get your arm somewhat tired."[94] The Zapper is useful for most games primarily involving firearms, such as light gun shooters, first-person shooters, first-person shooters. Wii Wheel with Wii Remote inserted The Wii Wheel accessory is
designed for use in driving games: it is a steering wheel-shaped shell that a Wii Remote can be placed inside, enhancing driving games that allow for steering control by tilting the Wii Remote left and right. The Wii Wheel was first shipped alongside Mario Kart Wii[95][96] and features prominently on the game's packaging. Third-party accessories
Main article: Third-party accessories for the Wii Remote Since the release of the Wii console, many aesthetic, ergonomic, and functional accessories have been developed for the Wii Remote by third parties.[97] Third-party development Play media Johnny Lee's WiiMote Whiteboard software used for light pen-type computer input Since the release of
the Wii console, people have been exploring different new ways in which to use the Wii Remote. Many third-party applications are currently in development through Wii homebrew.[98][99] One popular Windows program called GlovePIE allows the Wii Remote to be used on a personal computer to emulate a keyboard, mouse or joystick. Connecting
the Wii Remote to a personal computer is done via a Bluetooth connection. The Bluetooth program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the Wii Remote to a PC. Still another program (like GlovePIE) is needed to utilize the 
devices including cell phones, which often have poor usability with games. Two students have demonstrated this concept by creating driver software that a mobile phone with a TV-out port can replace the game console.[100] Programmer Johnny
Lee posted video demos and sample code at his website related to the use of the Wii Remote for finger tracking, low-cost multipoint interactive whiteboards, and head tracking for desktop VR displays. He demonstrated several such applications at a TED conference. The Wiimote Project forum became the discussion, support and sharing site for Lee's
Wii Remote projects and other newer developments. Studies have been conducted to use the Wii Remote as a practice method to fine-tune surgeons' hand motions.[101] Utilizing DarwiinRemote, researchers at the University of Memphis adapted the Wii Remote for data collection in cognitive psychology experiments.[102] Autodesk released a plugin
that allows the Wii Remote to control orientation of 3D models in Autodesk Design Review.[103] The pairing of a Wiimote does not allow a passcode. Reception Overall reception to the Wii Remote to control orientation of 3D models in Autodesk Design Review.[104] Since then, comments
have been noted by the press on its functionality. Matt Wales of IGN UK highlighted the aiming and precision of Red Steel and stated "Taking down swathes of enemies with nothing more than a twitch of the wrist proves immensely satisfying and, more importantly, incredibly involving."[105] Nintendo Power listed the Wii Remote as an innovative
[107] Other publications have noted specific complaints regarding control. GameSpot expressed that some motions in Cooking Mama: Cook Off failed to transmit or meet expectation during gameplay.[108] Similar observations were made on other titles made available during the Wii launch period. ComputerAndVideoGames.com reported that "Most
prominent is the first batch of games, many of which do a better job at exposing the obstacles of full motion control, rather than the benefits... Need For Speed... is near unplayable, Far Cry got it all wrong, and the motion control in Marvel: Ultimate Alliance just feels tacked on. "[109] The overall situation was described by Joystiq thus: "Over the
with the Wii Remote. Jeremy Parish of the magazine Electronic Gaming Monthly compared the initial phase of control implementation to that of the Nintendo DS.[111] Matt Casamassina of IGN also presumed that the first generation of Wii games were of an experimental stage and that potential for refinement had yet to be exploited.[112] Later-
released titles have seen mixed reactions in terms of control. Of Tiger Woods PGA Tour 07 from Electronic Arts, Matthew Kato of Game Informer stated that the controller "has a hard time detecting your backswing. Thus, it's harder to control. There were even times the game putted for me by accident."[113] A GamePro review for Medal of Honors
control scheme, which is seen as being unrivaled by any other console game. [115] Corruption utilizes the Nunchuk for strafing and the infrared pointing capability of the Wii Remote for turning and special "gestures", which are used to select visors. Other Nintendo titles take a more minimalist approach, using mostly the pointer and buttons only, as
 with Big Brain Academy: Wii Degree or use the controller in a sideways configuration to resemble a Nintendo Entertainment System controller while de-emphasizing more advanced capabilities as featured in Super Paper Mario.[116] The Wii Remote and Nunchuk combined to sell over 8.5 million units in the United States, and took the top two spots
in video game accessories sales in 2006.[117] In the U.S., the Nunchuk was the best-selling video game hardware for January 2008, with 375,000 units sold, in a month where the Wii was the best-selling console with 274,000 units sold, in a month where the Wii was the best-selling console with 274,000 units sold.
its form-factor, led into the development of the Nintendo Switch, a console small enough and with smaller controllers to also be a portable unit.[120] Legal issues The Wii Remote has come under a number of lawsuits from several different companies. Interlink Electronics filed a patent-infringement lawsuit against Nintendo in December 2006 over the
pointing functionality of the Wii Remote, claiming "loss of reasonable royalties, reduced sales and/or lost profits as a result of the infringing activities" of Nintendo.[121] No further court documentation on this case exists as of September 2017, suggesting that either the two companies settled prior to any court action, or Interlink had dropped the
 case.[122] On August 19, 2008 Hillcrest Laboratories Inc. filed a complaint against Nintendo with the U.S International Trade Commission, alleging that the Wii Remote infringed on three of its patents. A fourth Hillcrest patent (for graphical interfaces displayed on television screens) was also allegedly violated. Hillcrest sought a ban on Wii consoles
imported to the U.S.[123] On August 24, 2009 Nintendo and Hillcrest reached a settlement, although the terms were not publicly disclosed.[124] In September 2011, ThinkOptics Inc. filed a lawsuit against Nintendo in United States District Court of the Eastern District of Texas over their controller, the Wavit Remote, claiming that the Wii violated its
 patent for a "handheld vision based absolute pointing System", a "Handheld Vision Based Absolute Pointing System", and a "Handheld Vision Based Absolute Pointing System", which make up the basis for the Wavit Remote. They also said that the Wii U infringes on their patents as well and claims that Nintendo was aware of the
fact that the Wii allegedly violates ThinkOptics' patents. The lawsuit sought an injunction against violating products, royalties, attorney's fees, and damages for lost profits. [125] The lawsuit was dismissed by ThinkOptics in August 2014. [127] Starting in December 2012, iLife Technologies sued several large companies over patent infringement
over a set of patents they held related to "systems and methods for evaluating movement of a body relative to an environment", principally aimed at the medical field; Nintendo was sued by iLife in December 2013 for the Wii Remote's infringement on their patents, with the lawsuit seeking $144 million in damages, based on a $4 fine for the 36 million
Wii and Wii U units it had sold to date.[128] A jury trial was heard in August 2017, and the jury ruled in favor of iLife Technologies and Nintendo attempted to appeal this ruling, the United States Court of Appeals upheld the jury's decision in December 2017.[130] However, in
January 2020, a federal court overturned the judgement and ruled that iLife's patent was too broad. [131] Wrist strap of the Wii Remote has also been an issue. In mid-December 2006, the law firm Green Welling LLP filed a class action lawsuit against Nintendo for its "defective wrist straps". A few days later, Nintendo issued a
 product recall for the wrist straps and issued a new version of the strap with an improved securing mechanism for the wrist, leading to the lawsuit to be dropped sometime thereafter. [132] A second class-action lawsuit to be dropped sometime thereafter.
 dismissed by September 2010, finding for Nintendo that the wrist straps were not knowingly faulty under Colorado consumer protection laws.[135] Trademark issues In 2000, the term "Weemote" was trademarked by Miami based TV remote manufacturer Fobis Technologies and was later used as the name of their remote designed for young children.
[136][137] While spelled differently, the term "Weemote" is phonetically identical to "Wiimote. [136][138] Sales of the Weemote, which totaled less than one million as of 2008 had fallen due to confusion with the Wiimote. [136][138] Sales of the Weemote, which totaled less than one million as of 2008 had fallen due to confusion with the Wiimote.
not actually use the term "Wiimote" in official promotional materials; but many retailers and desist letters to retailers and does not use and does not
 Nintendo's trademark filing if the company disclaims exclusive rights to the word "remote" in the term and if the word "Wii" would always precede the word "remote" in marketing and manuals. The USPTO accepted the "Wii Remote" trademark in July 2012.[141][142] See also List of Nintendo controllers List of Wii games Wii Balance Board Wii
 Speak PlayStation Move Razer Hydra Notes ^ Wī Rimokon (Wiiリモコン) References ^ Sanders, Kathleen (September 13, 2006). "Japanese Wii Price, Release Date Revealed". IGN. Retrieved January 17, 2015. ^ Sanders, Kathleen; Casamassina, Matt (September 13, 2006). "US Wii Price, Launch Date Revealed". IGN. Retrieved January 17, 2015.
Nintendo Australia (September 15, 2006). "Wii Australian Details". Nintendo World Report. Retrieved January 17, 2015. ^ Nintendo of Europe (September 15, 2006). "Europe Gets Wii Last". Nintendo World Report. Retrieved January 17, 2015. ^ Nintendo of Europe (September 15, 2006). "Unearthed: Nintendo World Report. Retrieved January 17, 2015. ^ Ninten
Retrieved August 30, 2007. ^ "Wii Feature: Revolution: The story of Wii - ComputerAndVideoGames.com". 2012-11-18. Retrieved 2018-07-29. ^ a b Rothman, Wilson (August 30, 2007). "Exclusive: Wii-mote Prototype Designer Speaks Out, Shares Sketchbook". Gizmodo. Retrieved August 31, 2007. ^ a b c d exclusive: Wii-mote Prototype Designer Speaks Out, Shares Sketchbook".
Hall, Kenji. "The Big Ideas Behind Nintendo's Wii". BusinessWeek. Archived from the original on October 15, 2007. Retrieved August 30, 2007. ^ "Factor 5 worked with GameCube motion controller". Aussie-Nintendo.com. July 28, 2007. Archived from the original on September 27, 2007. Retrieved August 30, 2007. ^ a b "Wii Mailbag - January 26,
2006". IGN. January 26, 2006. Archived from the original on December 7, 2008. Retrieved August 30, 2008. Archived from the GameCube". Eurogamer. Retrieved October 29, 2018. Archived from the original on December 7, 2008. Retrieved August 30, 2008. Archived from the original on December 7, 2008. Retrieved August 30, 2008. Archived from the original on December 7, 2008. The companies of the GameCube.
joystiq.com. Archived from the original on March 18, 2011. Retrieved December 18, 2009. ^ "Beware of fake Wii remotes!". randomsnippets.co.uk. December 18, 2009. ^ a b "Nintendo Wii - Hardware Information". Nintendo. Archived from the original on February 12,
 2008. Retrieved May 9, 2006. ^ a b c d "Wii の概要 コントローラ" (in Japanese). Nintendo Company, Ltd. Archived from the original on July 6, 2006. Retrieved May 9, 2006. ^ Niero (June 14, 2007. Retrieved March 19, 2007. ^ racketboy
(December 29, 2005). "Dreamcast Prototype Insipires Revolution Controller?". racketboy.com. Retrieved July 15, 2008. A "IGN: Red Steel Video". IGN. Archived from the original on May 11, 2008. Retrieved June 7, 2008. Retrieved July 15, 2008. A "IGN: Red Steel Video". IGN. Archived from the original on May 11, 2008. Retrieved June 7, 2008. Retrieved July 15, 2008.
2020. ^ Nintendo EAD (November 19, 2006). Wii Sports (Wii). Level/area: Startup. Safety Notice: "Put on and tighten the wrist strap. Hold the Wii Remote Jacket." ^ "Kirby Dream Collection - Instruction Booklet" (PDF). Nintendo. p. 3. Retrieved 2 September 2020. ^ "New Play Control! Mario
Power Tennis - Instruction Booklet" (PDF). Nintendo. p. 4. Retrieved 2 September 2020. CAUTION: WRIST STRAP USE - Please use the wrist strap to help prevent injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding objects or the Wii Remote injury to other people or damage to surrounding or the Wii Remote injury to other people or damage to other peopl
players put on the wrist strap properly when it is their turn. • Do not let go of the Wii Remote during game play and make sure that all areas you might move into are clear of other people and objects. • Stay at least three feet from the television. • Use the
 Wii Remote Jacket. ^ Wii System Operation Manual (PDF), p. 25-26: Nintendo, Retrieved 3 September 2020. CS1 maint: location (link) ^ "Wii Party - Instruction Booklet" (PDF), Nintendo, pp. 17-19. Retrieved February 24, 2007. A "Broken Wii Controller". IGN. Archived from the original (video) on February 20, 2007. Retrieved February 24, 2007.
 "Customer Service > Wii > Safety Information". Nintendo. Retrieved February 24, 2007. Sliwinski, Alexander (December 8, 2006). "Jumpin' jinkies, new Wii straps". Official Nintendo Magazine. December 15, 2006. Archived from the original on March 18,
2007. Retrieved February 24, 2007. ^ "Nintendo of America Initiates Replacement Program for Wrist Straps Used with Controllers for the Wii Video Game System". U.S. Consumer Product Safety Commission. December 15, 2006. Archived from the original on February 20, 2007. Retrieved February 24, 2007. ^ Rodriguez, Stephen (August 3, 2007).
"New Wii Wrist Straps Circulating". Nintendo World Report. Retrieved July 15, 2008. ^ "Nintendo announces new Wii Remote Jacket accessory". Nintendo. September 14, 2007. Archived from the original on December 14, 2007. Archived from the original on December 14, 2007. Archived from the original on December 15, 2007. Archived from the original on December 14, 2007. Archived from the original on December 14, 2007. Archived from the original on December 14, 2007. Archived from the original on December 15, 2007. Archived from the original on December 14, 2007. Archived from the original on December 14, 2007. Archived from the original on December 14, 2007. Archived from the original on December 15, 2007. Archived from the original on December 14, 2007. Archived from the original on December 15, 2007. Archived from the original on December 14, 2007. Archived from 
December 2017. "Wii Remote Colors". news.com. Retrieved July 15, 2006. Gantayat, Anoop (September 14, 2006). "Wii Quotables". IGN. Archived from the original on February 24, 2007. Retrieved June 4, 2009. Retrieved June 4, 2009.
   a b Caoili, Eric (June 4, 2009). "Black Wii, Red DSi Announced For Japan". Gamasutra. Think Services. Retrieved June 4, 2009. ^ a b Tanaka, John (June 4, 2009. ^ The Nintendo Channel (January 12, 2010). "Club Nintendo Goodies Episode 4". You Tube
Archived from the original on December 18, 2015. Retrieved March 23, 2011. ^ a b "Nintendo Unveils Wii Fit Plus Launch Date and New Colors of Nintendo of America. August 31, 2009. A "New color puts Nintendo" Nintendo Unveils Wii Remote and Nunchuk in the black". Nintendo of America.
America. October 14, 2009. Retrieved October 14, 2009. A Fletcher, JC (October 8, 2009). "Nintendo announces new Pokemon spinoff, new Wiimote colors, hardware bundles at retailer event". Joystiq. Weblogs, Inc. Archived from the original on October 11, 2009. Retrieved October 14, 2009. A "Nintendo unveils its video game lineup for early 2010".
Nintendo of America. December 14, 2009. Retrieved December 14, 2009. ^ "Nintendo.com.au - Wii Remote Colours". Gamesites.nintendo.com.au. Retrieved December 1, 2020. ^ a b Castaneda, Karl (May 13, 2006). "Nintendo and
PixArt Team Up". Nintendo World Report. Retrieved February 24, 2007. Nintendo patent application 2007/0211026, Fig. 16 and page 13. Nintendo patent application 2007/0211027, Fig. 17 and pages 10-11.
Figure 16 and paragraph 0115 ^ Termed "Pushing or Pulling" in the Wii Operations Manual, System Setup, page 25 ^ Termed "Twisting" in the Wii Operations Manual, System Setup, page 25 ^ a b c Casamassina, Matt (July 14, 2006). "Wii Controllers: Unlocking the Secrets". IGN. Archived from the original on April 27, 2009. Retrieved June 7, 2020
    "Using two candles as a Wii Sensor Bar replacement". YouTube. Retrieved September 24, 2006. ^ "TGS 2005: Revolution Teaser Video". IGN. Archived from the original (video) on March 17, 2006. Retrieved March 16, 2006. ^ "TGS 2005: Revolution Teaser Video". IGN. Archived from the original (video) on March 17, 2006. Petrieved March 16, 2006. ^ "TGS 2005: Revolution Teaser Video". IGN. Archived from the original (video) on March 17, 2006. Archived from the original (video) on March 18, 2006. ^ "TGS 2005: Revolution Teaser Video".
 7, 2008. ^ Todd, Brett (19 August 2009). "Real Heroes: Firefighter Review". Gamespot. Retrieved 28 September 2020. ^ a b Wii Operations Manual: Channels and Settings (PDF). Nintendo. 2008. pp. 64-65. C/RVL-USZ-4. ^ a b Seidle, Nathan (December 19, 2006). "Wii-mote guts". Spark Fun Electronics. Retrieved March 28, 2007. ^ "Smash Bros."
DOJO!!". Smashbros.com. Archived from the original on August 6, 2011. Retrieved March 23, 2011. ^ Club Penguin: Game Day! Manual. September 21, 2010. ^ "Wii Controllers: No Recharging Yet". The Wiire. Archived from the original on June 18, 2006. Retrieved May 11, 2006. ^ "What Types of Batteries Can Be
Used with the Wii Remote?". Nintendo. Retrieved February 17, 2019. ^ Nintendo EAD (November 18, 2011). The Legend of Zelda: Skyward Sword (Wii). Level/area: Low battery warning. Fi: "Master, the batteries in your Wii Remote are nearly depleted." ^ Thomas East. "Wii Remote Plus coming to Japan next month". Official Nintendo Magazine.
Archived from the original on October 13, 2010. Retrieved May 7, 2013. ^ a b Fletcher, JC. "Red Wii and DSi XL bundles, Wii Remote Plus, and FlingSmash in North America Nov. 7". Joystiq. ^ Thomas, Lucas (April 12, 2011). "Wii Play Gets an Unexpected Sequel". IGN. Archived from the original on April 16, 2011. Retrieved April 12, 2011. ^ E3
2011: Legend of Zelda: Skyward Sword Due End of Year; Gold Tri-Force Wii Remote Announced. Esperino.com. Retrieved on 2013-08-23. ^ //e3src.nintendo.com/presentation/. Archived from the original on August 9, 2012. Retrieved February 22, 2013. Missing or empty | title= (help) ^ The Legend of Zelda: Skyward Sword Box Art, Bundle Revealed
Archived September 25, 2011, at the Wayback Machine. IGN. Retrieved on 2020-06-07. ^ a b Hatfield, Don (10 August 2012). "CLUB NINTENDO OFFERING UP LIMITED EDITION GOLD WII NUNCHUK!". MTV.com. Retrieved 3 September 2020. ^ King, Kenny. "Nintendo Announces Wii U Deluxe Set with Mario and Luigi Games Plus New Mario and
Luigi Themed Controllers on the Way". BioGamer Girl. Retrieved 29 December 2017. ^ Creegan, Dermot. "Princess Peach Wii Remote Plus Announced For Release". HardcoreGamer. Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Release". Nintendo Insider. Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Release". Nintendo Insider. Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Release". Nintendo Insider. Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Release". Nintendo Insider. Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Release". Nintendo Insider. Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Release". Nintendo Insider. Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toad and Yoshi Wii Remote Plus Swing Toward North American Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toward North American Retrieved 29 December 2017. ^ Seedhouse, Alex. "Bowser, Toward North American Retrieved 20 December 2017. ^ Seedhouse, Alex. "Bowser, Toward North American Retrieved 20 December 2017. ^ Seedhouse, Alex. "Bowser, Toward North American Retrieved 20 De
December 2017. \tag Wales, Matt (May 22, 2006). "Reports claim Wii to slap down 16 at launch". Computer and Video Games. Retrieved May 25, 2006. \tag Berghammer, Billy (June 2, 2006). "Reports claim Wii to slap down 16 at launch". Computer and Video Games. Retrieved May 25, 2006. \tag Berghammer, Billy (June 2, 2006). "Reports claim Wii to slap down 16 at launch". Computer and Video Games. Retrieved May 25, 2006. \tag Berghammer, Billy (June 2, 2006). "The Ultimate in PR Spin: The Perrin Kaplan Interview: Part Four" (WMV). Game Informer. Retrieved June 8, 2006. \tag Berghammer, Billy (June 2, 2006). "The Ultimate in PR Spin: The Perrin Kaplan Interview: Part Four" (WMV). Game Informer. Retrieved June 8, 2006. \tag Berghammer, Billy (June 2, 2006). "The Ultimate in PR Spin: The Perrin Kaplan Interview: Part Four" (WMV). Game Informer. Retrieved June 8, 2006. \tag Berghammer, Billy (June 2, 2006). "The Ultimate in PR Spin: The Perrin Kaplan Interview: Part Four" (WMV). Game Informer. Retrieved June 8, 2006. \tag Berghammer, Billy (June 2, 2006). \tag Bergha
May 12, 2006. Retrieved May 12, 2006. ^ "TGS 2005: Revolution Teaser Video". IGN. Archived from the original on May 11, 2011. Retrieved June 7, 2020. ^ "todbot.com. Retrieved March 23, 2011. ^ Greenwald, Will (January 7, 2008). "Retrieved April 7, 2010". Ces.cnet.com.
Retrieved March 23, 2011. ^ a b "Nintendo to set Summer '09 ablaze with Wii MotionPlus and Wii Sports Resort". Nintendo of Europe. April 14, 2009. Archived from the original on April 17, 2009. Retrieved April 17, 2009. Archived from the original on April 17, 2009. Archived from the original on April 18, 2009. Archived from the original on April 18, 2009. Archived from the original on April 19, 2009. Archived from the original original original original original original origina
Business Wire. Retrieved April 14, 2009. ^ Yu, James (July 17, 2008). "Wii MotionPlus Hands-On". GameSpot. CNET. ^ "MEMS Gyroscope Technology". InvenSense. Archived from the original on April 16, 2008. Retrieved July 17, 2008. ^ "Introducing Wii MotionPlus, Nintendo's upcoming accessory for the revolutionary Wii Remote". Nintendo. July
14, 2008. Archived from the original on July 15, 2008. Retrieved July 14, 2008. Pigna, Kris (June 2, 2009). "Satoru Iwata Announces Wii Vitality Sensor". 1UP.com. Archived from the original on May 16, 2016. Retrieved June 2, 2009.
Archived from the original on July 31, 2008. Retrieved June 2, 2009. Nintendo Dissatisfied With Sales Of Some Games, Dates Vitality Sensor Showcase "GameTrailers TV with Geoff Keighley". Gametrailers.com. June 18, 2010. Retrieved March 23, 2011. The University Sensor Showcase "GameTrailers TV with Geoff Keighley". Gametrailers.com. June 18, 2010. Retrieved March 23, 2011. The University Sensor Showcase "GameTrailers TV with Geoff Keighley". Gametrailers TV with Geoff Keighley". Gametrailers.com. June 18, 2010. Retrieved June 2, 2009. The University Sensor Showcase "GameTrailers TV with Geoff Keighley". Gametrailers TV with Geoff Keighley TV with Geoff K
Sensor still alive". Archived from the original on 2011-06-13. Actrieved 2011-06-13. A b Phillips, Tom (2013-07-05). "Nintendo explains Wii Vitality Se". IGN. Retrieved 1 April 2016. Dean Takahashi, (July 29, 2007). An interview
with...Shigeru Miyamoto mercurynews.com. Retrieved 23 December 2014. ^ "Ars at E3: Nintendo shows new first-party peripherals Wii Review". IGN. 20 April 2008. Retrieved 23 December 2014. ^ "Ars at E3: Nintendo shows new first-party peripherals Wii Remote shell
range". Aussie-Nintendo.com. Archived from the original on March 9, 2007. Retrieved February 24, 2007. ^ Lee, Johnny Chung (15 July 2008). "Hacking the Nintendo Wii Remote". Pervasive Computing. 7 (3): 39-45. doi:10.1109/MPRV.2008.53. S2CID 11121544. ^ Brophy-Warren, Jamin (April 28, 2007). "Magic Wand: How Hackers Make Use Of
Their Wii-motes". The Wall Street Journal. Retrieved December 4, 2020. ^ "mobiPad project". Archived from the original on January 23, 2009. Retrieved May 9, 2008. ^ "Nintendo Wii With A New Mission: Wiimote As An
Interface Bridging Mind And Body". Sciencedaily.com. March 9, 2008. Retrieved March 23, 2011. ^ "2006 Winners". Game Critics Awards. Retrieved August 13, 2006. ^ Wales, Matt (November 24, 2006). "Red Steel UK Review". IGN. Retrieved June 7, 2020. ^ Nintendo Power 250th issue!. South San Francisco, California: Future US. 2010. p. 45. ^ Cohen, D.S. "Le Stick - The First Motion Controller". About.com. Retrieved May 7, 2007. ^ Jackson, Mike (February 18, 2007). "Is the novelty of Wii wearing
off?". ComputerAndVideoGames.com. Retrieved May 8, 2007. ^ Carnevale, Tony (April 2, 2007). "Cooking Mama: Cook Off highlights Wii Remote issues". Joystiq. Retrieved May 8, 2007. ^ Parish, Jeremy (January 2007). "Elebits review". Electronic Gaming Monthly: 64. ^ Casamassina, Matt (October 18, 2006). "N-Query". IGN. Archived from the
original on March 3, 2007. Retrieved May 8, 2007. Archived from the original on May 28, 2007. Archived from the original on April 10, 2007. Archived May 11, 2007. Archived May 11, 2007. Archived from the original on May 28, 2007. Retrieved May 11, 2007. Archived from the original on May 28, 2007. Archived from the original on Ma
(August 27, 2007). "Metroid Prime 3: Corruption Review". IGN. p. 4. Retrieved June 7, 2020. ^ Casamassina, Matt (March 5, 2007). "Super Paper Mario Review". IGN. p. 2. Archived from the original on January 26, 2009. Retrieved June 7, 2020. ^ Boyer, Brandon (January 18, 2008). "NPD: 2007 U.S. Game Industry Growth Up 43% To $17.9 Billion"
Gamasutra. Retrieved January 18, 2008. ...The Wii Remote and the Nunchuk combined for over 8.5 million in units sales last year, capturing the top two spots in accessories sales. ^ Casamassina, Matt (February 14, 2008). "NPD: Wii Wins January". IGN. Archived from the original on February 16, 2008. Retrieved February 15, 2008. ^ McWhertor,
Michael (February 15, 2008). "What Was January's Biggest Seller?". Kotaku. Gawker Media. Retrieved February 9, 2018. A Seff, Micah (December 8, 2006). "Nintendo Sued for Patent
Infringement". IGN. Archived from the original on December 13, 2006. Retrieved June 7, 2020. Sutcliffe, Chris (September 7, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Kotaku. Retrieved December 28, 2017. Wingfield, Nick (August 21, 2008). "Start-Up Says Nintendo Violated Patents". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 7, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Long History of Beating Patent Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28, 2017). "Nintendo's Lawsuits". Wall Street Journal. Retrieved September 28, 2017. Sutcliffe, Chris (September 28
25, 2008. ^ "Nintendo settles US trade fight over Wii". www.theage.com.au. Melbourne: The Age. August 24, 2009. ^ "ThinkOptics Sues Nintendo Over Remote Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360". www.law360.com. Retrieved 2018-09-05. ^ "ThinkOptics, and the Control Patents - Law360
Inc v. Nintendo of America, Inc. et al". insight.rpxcorp.com. Retrieved 2018-09-05. Nicholson, Eric (December 16, 2013). "A Dallas Inventor Is Suing Nintendo for Stealing His Idea for Wii U's Motion Sensors". Dallas Inventor Is Suing Nintendo for Stealing His Idea for Wii U's Motion Sensors". Dallas Inventor Is Suing Nintendo for Stealing His Idea for Wii U's Motion Sensors".
patent, awards $10M". Ars Technica. Retrieved December 28, 2017. ^ "Appeals Court Upholds iLife Patent in $10M Wii Gaming Judgment". Glixel. December 28, 2017. ^ Nunneley, Stephany (January 21, 2020). "Court overturns $10 million judgment against Nintendo's Wii Remote". VG247. Retrieved January 21, 2020.
  Nintendo Recalls Defective Wii Wrist Straps After Class Action Filed by Green Welling LLP". Business Wire. December 16, 2006. Retrieved March 23, 2007 - via Houston Chronicle. Fahey, Mike (December 12, 2008). "Nintendo Faces New Remote Strap Lawsuit". Kotaku. Retrieved December 28, 2017. Beaumont, Claudine (December 12, 2008).
2008). "Nintendo sued over 'dangerous' Wii controllers". The Daily Telegraph. Retrieved December 28, 2017. A b c Padgett, Tim (2008-07-18). "The Weemote vs. Wiimote Tiff". TIME.com. Archived from the original on
July 21, 2008. Retrieved 2008-08-01. ^ "RC: Fobis Technologies Weemote Kids' Remote Control Review (1)". www.remotecentral.com. Retrieved 2018-07-22. ^ a b c "Small Firm's Weemote Came First, But Steamrolled by Nintendo's Wiimote". GamePolitics.com. July 23, 2008. Archived from the original on July 30, 2008. Retrieved August 1, 2008. ^
 "The Weemote vs. Wiimote Tiff - TIME". August 8, 2008. Archived from the original on August 8, 2008. Retrieved August 1, 2008. ^ "Wee bit of trouble: Nintendo Comments on Weemote-Wiimote Flap; Online Retailer Pressured".
can't trademark 'Wii Remote'". Engadget. Retrieved 2018-08-29. ^ "WII REMOTE Trademarks of Nintendo of America Inc. - Registration Number 4177430 - Serial Number 77427250 :: Justia Trademarks justia.com. Retrieved 2018-08-29. External links Wikimedia Commons has media related to Wii Remote. Nintendo Controllers page
Nintendo Accessories page US application 2007049374 Retrieved from "2Video game peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo, Alps ElectricTypeVideo game console peripheral 64DDA Nintendo 64 with the 64DD installedDeveloperNintendo 64 with the 64D
sold15,000+[2]MediaMagnetic disk (64 MB)Storage36 megabit ROM (audio/font)[3]Connectivity22.8 kbps dialup modem[3]Online servicesRandnet[4] randnetdd.co.jpWebsitenintendo.com/n64/64dd.html at the Wayback Machine (archived 1998-02-05). Additional archives: 2000. The 64DD[a] is a magnetic floppy disk drive peripheral for the Nintendo
64 game console developed by Nintendo. It was announced in 1995, prior to the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999. The "64" references both the Nintendo 64's 1996 launch, and after numerous delays was released in Japan on December 13, 1999 launch, and after numerous delays was released in Nintendo 64's 1996 launch, and after numerous delays was released in Nintendo 64's 1996 launch, and after numerous delays was released in Nintendo 64's 1996 launch, and after numerous 
the extension port on the underside of the console, the 64DD allows the Nintendo 64 to use proprietary 64MB magnetic disks for expanded and rewritable data storage, a real-time clock for persistent game world design, and a standard font and audio library for further storage efficiency. Its games and hardware accessories let the user create movies,
characters, and animations to use within various other games and shared online. The system could connect to the Internet through a dedicated online service, Randnet, for e-commerce, [6] online gaming, and media sharing, [7] Describing it as "the first writable bulk data storage device for a modern video game console", [8] Nintendo designed the
64DD as an enabling technology platform for the development of new genres of games and applications,[9] dozens of which were in development for several years. Only ten pieces of software were released until the unit was discontinued in February 2001, with 15,000 Randnet subscribers at the time. It was a commercial failure,[10] with at least
15,000 total units being sold,[2] and was never released outside Japan. Most games once planned for 64DD were released as standard Nintendo 64 games, ported to other consoles such as the GameCube, or canceled. IGN summarized the 64DD as "an appealing creativity package"[7] which was "targeted at a certain type of user"[3] that "delivered a
well-designed user-driven experience"—and as a "limited online experiment at the same time", which partially fulfilled Nintendo consoles all across the nation".[3] History Development With the 1993 announcement of its new Project Reality console, Nintendo explored
options for data storage. A Nintendo spokesperson said in 1993 that "it could be a cartridge system, or both, or something not ever used before."[11] In 1994, Howard Lincoln, chairman of Nintendo of America said, "Right now, cartridges offer faster access time and more speed of movement and characters than CDs. So, we'll introduce
our new hardware with cartridges. But eventually, these problems with CDs will be overcome. When that happens, you'll see Nintendo using CD as the software engineering manager Jim Merrick warned,
"We're very sensitive to the cost of the console. We could get an eight-speed CD-ROM mechanism in the unit, but in the under-$200 console market, it would be hard to pull that off."[13]:66 Describing the final choice of proprietary floppy disks instead of CD-ROM, Nintendo game designer Shigesato Itoi explained, "CD holds a lot of data, DD holds a
```

moderate amount of data and backs the data up, and [cartridge] ROMs hold the least data and process the fastest. By attaching a DD to the game console, we can drastically increase the number of possible genres."[9] Further information on the Nintendo 64's alternate storage strategies and the optimizations involved with cartridges: Nintendo 64

```
Game Pak The company also explored the forging of an early online strategy with Netscape, whose founding management had recently come directly from SGI, the company which had designed the core Nintendo 64 hardware.[14][15] Within its budding online strategy, Nintendo reportedly considered multiplayer online gaming to be of the highest
priority, even above that of web browsing.[15] Several third party game developers were develo
these ideas, but would drastically alter both plans over the following years, in favor of a floppy-based storage technology and the Randnet online multiplayer gaming support whatsoever. Announcement It would have been easier to understand if the DD was already included when the N64 first
came out. It's getting harder to explain after the fact. (laughs) — Nintendo designer Shigeru Miyamoto[9] The 64DD was first announced at Nintendo said it would launch by the end of 1996,[20] although giving virtually no technical specifications yet.[21] However, its first public appearance
wasn't until Nintendo's 8th Shoshinkai show of November 22—24, 1996, where IGN reported that the device nicknamed "Bulky Drive"[3][8] was one of the biggest items of the show.[22] There, Nintendo of America Chairman Howard Lincoln stated that the device had received its finalized hardware specifications and sported its own show booth.
Nintendo's Director of Corporate Communications, Perrin Kaplan, made the company's first official launch window announcement for the peripheral, scheduled from the US for the 64DD presentation ancement for the peripheral launch window announcement for the peripheral scheduled from the US for the 64DD presentation ancement for the peripheral scheduled from the US for the 64DD presentation ancement for the peripheral scheduled from the US for the 64DD presentation ancement for the peripheral scheduled from the US for the 64DD presentation ancement for the peripheral scheduled from the US for the 64DD presentation ancement for the peripheral scheduled from the US for the 64DD presentation ancement for the peripheral scheduled from the US for the 64DD presentation ancement for the peripheral scheduled from the US for the 64DD presentation ancement for the peripheral scheduled from the US for the 64DD presentation ancement for the peripheral scheduled from the US for the 64DD presentation ancement for the 64DD presentation and for the 
some having received 64DD development kits.[15] The demonstration included an improvised disk conversion of the familiar Super Mario 64 game to demonstrate the drive's operation and performance, and a graphics application mapping the audience's photographical portraits onto live 3D animated avatars—a feature which was ultimately
incorporated and released in 2000 as Mario Artist: Talent Studio and the Capture Cassette. [23][27] Included along with Enix in the early roster of committed 64DD developers, Rare officially discounted any rumors of the peripheral's impending pre-release cancellation.
Creations, [29] the same UK company that had made Sound Tool for the Nintendo Ultra 64 development kit. They touted the game's ability to be integrated into other games, allowing a player to replace any such game's textures and possibly create new levels and characters. There was no playable version of Creator available at this show, but the
project was later absorbed into Mario Artist: Paint Studio.[29][30] Nintendo also announced their plans to bundle the 64DD with a RAM expansion cartridge at the show.[31] Much of the gaming press said the Shoshinkai show did not make as significant a 64DD reveal as Nintendo also announced their plans to bundle the 64DD with a RAM expansion cartridge at the show.[31] Much of the gaming press said the Shoshinkai show did not make as significant a 64DD reveal as Nintendo also announced their plans to bundle the 64DD with a RAM expansion cartridge at the show.[31] Much of the gaming press said the Shoshinkai show did not make as significant a 64DD reveal as Nintendo also announced their plans to bundle the 64DD with a RAM expansion cartridge at the show.[31] Much of the gaming press said the Shoshinkai show did not make as significant a 64DD reveal as Nintendo also announced their plans to bundle the 64DD with a RAM expansion cartridge at the show.[31] Much of the gaming press said the Shoshinkai show did not make as significant a 64DD reveal as Nintendo also announced their plans to bundle the 64DD with a RAM expansion cartridge at the show.[31] Much of the gaming press said the Shoshinkai show did not make as significant a 64DD reveal as Nintendo also announced their plans to bundle the 64DD with a RAM expansion cartridge at the show. [31] Much of the gaming press said the Shoshinkai show did not make a significant a 64DD reveal as Nintendo also announced the show t
software lineup, practical capabilities, and release date.[32][33][34] Zelda 64 (eventually released as the cartridge game The Legend of Zelda: Ocarina of Time) was seen as the 64DD's potential killer app in the months following the system's unveiling.[35] On April 3-4, 1997, Nintendo of America hosted a Developer's Conference in Seattle,
Washington, where a surprise overview was delivered by Nintendo Developer Support staff Mark DeLoura about the 64DD is notable in part for its multi-year period of many other business processes and product launches for launch delays, which created an interdependent cascade of delays and complications of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its multi-year period of many other business processes and product launches for its mu
Nintendo and its partners.[3][7][36][37] On May 30, 1997, Nintendo issued a press conference announcing the first in what would become a series of the product's launch delays, saying it had been rescheduled to March 1998, with no comment on an American release schedule. At that time, the delays were reportedly attributed to the protracted
development of both the disks and the drive technologies. [25][38] On June 9, 1997, Nintendo and Alps Electric announced their manufacturing partnership for the still tentatively titled [8] 64DD. [39] We're hesitant to say [the status of the 64DD, we'll be stuck. Don't
 worry. Feel easy about the 64DD. —Miyamoto, July 29, 1997[40] At the pre-E3 press conference on June 18, 1997, the company wouldn't release the device until sufficient numbers of software releases support it. Reportedly featuring at least twenty games in
development including Donkey Kong 64 and the sequel to Super Mario 64, the device still retained its projected Japanese launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received its first American launch window of "at least" March 1998, and received i
designer, Shigeru Miyamoto, speculated that the first games to be released for the new system would be SimCity 64, Mario Artist, Pocket Monsters, and Mother 3.[43][44] [Nintendo can't guarantee that the 64DD will launch in the US in 1998], but what we can say is that it will launch when it is ready and when we have a compelling piece of software
for it. But it's an accessory and we all know the history of selling add-ons in this marketplace, and to be successful we'd have to get a 60%-to-80% penetration of this 64DD into the installed base of N64 to be considered a success. We can't just have 10% or 20% of people buy it, otherwise it wouldn't make any sense to continue software support for it.
 —George Harrison, VP of Nintendo of America, April 1997[45] In a December 1997 interview with Shigeru Miyamoto and Shigesato Itoi, Miyamoto confessed the inherent difficulty in repeatedly attempting to describe and justify the long-promised potential of the mysterious peripheral to a curious public. He said that it "would have been easier to
understand if the DD was already included when the K4DD. There are so many ideas I wouldn't have
been allowed to come up with if we didn't have the 64DD." Miyamoto concluded, "Almost every new project for the N64 is based on the 64DD game." [9] By 1998, IGN optimistically expected all major Nintendo 64 cartridge games to
have software support for an impending expansion disk. Known third-party 64DD developers included Konami, Culture Brain, Seta, Japan System Supply, Titus, Infogrames, Rare, Paradigm Entertainment, Ocean, and Factor 5.[15][46] Despite NCL's confident announcements, we still suggest gamers looking to import the drive shouldn't hold their
breath. Nintendo's 64DD delay track record still has a few openings for more entries. —IGN, April 8, 1999[37] More delays were subsequently announced. The American launch was delayed to late 1998.[24] The Japanese launch was delayed to June 1998, later adjusted by the apologetic announcement on April 3, 1998, that it would launch "within the
year".[47] The 64DD was notably absent from E3 1998, having been briefly described the day prior as "definitely not" launching in 1998 and "questionable" in 1999, which Next Generation magazine interpreted as being "as close to 'dead' as we can imagine".[48] IGN pessimistically explained that the peripheral's launch delays were so significant, and
 Nintendo's software library was so dependent upon the 64DD, that this lack of launchable software also caused Nintendo to entirely cancel its Space World 1998 trade show.[37] On April 8, 1999, IGN announced Nintendo to entirely cancel its Space World 1998 trade show.[37] On April 8, 1999, IGN announced Nintendo to entirely cancel its Space World 1998 trade show.[37] On April 8, 1999, IGN announced Nintendo to entirely cancel its Space World 1998 trade show.[37] On April 8, 1999, IGN announced Nintendo to entirely cancel its Space World 1998 trade show.[37] On April 8, 1999, IGN announced Nintendo to entirely cancel its Space World 1998 trade show.[37] On April 8, 1999, IGN announced Nintendo to entirely cancel its Space World 1998 trade show.[37] On April 8, 1999, IGN announced Nintendo to entirely cancel its Space World 1998 trade show.[37] On April 8, 1999, IGN announced Nintendo to entirely cancel its Space World 1998 trade show.[37] On April 8, 1999, IGN announced Nintendo to entirely cancel its Space World 1998 trade shows the space wore shown to space world 1998 trade shows the space world 1998 trad
 1999 E3 as what IGN called an "almost forgotten visitor", there were no longer any plans for release outside Japan, and its launch date at December 1, 1999, but reportedly had not yet set a launch date
for the 64DD.[50] Earthbound 64, which IGN cynically called "in development for nearly 1,000 years",[51] had been heavily anticipated inside the company and globally as a crucial 64DD launch game, but the announcement of its conversion from 64DD disk to 32 megabyte cartridge plus expansion disk was taken by IGN as unsurprising but also a
sign of further delay or cancellation of the 64DD altogether. [52][51] Launch The 64DD was launched on December 13, 1999, exclusively in Japan, [53] as a package called the Randnet Starter Kit which included six games bimonthly through the mail, and a year of Internet service. Anticipating that its long-planned peripheral would become a
commercial failure, Nintendo initially sold the Randnet Starter Kit via mail order.[7] Later, very limited quantities of the standalone 64DD and games were made available in stores. Discontinuation On August 25, 2000, Space World 2000 was signified by the launches of the Standalone 64DD and games were made available in stores.
unofficial discontinuation of the 64DD, jokingly calling it "DeaDD". According to IGN, "Nintendo did not speak about 64DD during its opening speech, nor did the hardware itself have any booth presence. In fact, the unofficial 'No 64DD!' policy seemed to be enforced by Nintendo so brutally that had we even muttered the name of the hardware, we
would have probably been tossed out of the show."[54] The official discontinuation of the 64DD and Randnet was announced in October 2000, at a time when there were reportedly 15,000 subscribers.[2] The hardware and online platforms were both discontinued in February 2001. Only nine official disks, including three third-party games and one
Internet application suite, were released for it. Most planned 64DD games were either released for it. Most planned 64DD games were either released for it. Most planned 64DD lower as cartridge storage console, or canceled entirely.[3] Hardware Dual storage CD-ROM Cartridge 64DD lower as cartridge storage console, or canceled entirely.
capacity4-64 MB moderate capacity650 MB read/write read-only major production,7-10 days[55]:3 easier production,7-10 days[55]:3 easier production,7-10 days[55]:3 easier production,7-10 days[55]:48instantaneous
moderate 503.70-1043.39 kB/s[57]75 ms avg[3] slowest 300 kB/s peak[8]200+ ms avg proprietary PC-copyable durable magnetic [57][58]:5 scratchable The 64DD disk, top 64DD disk, top 64DD disk, top 64DD disk, bottom Nintendo designed the 64DD as an enabling technology for the development of new genres of games, [9] which was principally
accomplished by its three main design features: its dual storage strategy of the Nintendo 64 plus the 64DD combines the traditional high speed cartridges, which are low-capacity, non-writable, and expensive but very fast along with the
introduction of proprietary mass storage disks, which are large-capacity, rewritable, and cheap but only moderately fast. Though incompatible in every way with any other consumer electronics product, the 64DD's magnetic storage technology resembles the generic floppy disk, and the large and sturdy shell of the proprietary Zip disk for personal
computers.[24][60] Though various prominent sources have mistakenly referred to the medium as being magneto-optical technology, Nintendo's own developer documentation refers to it in detail as being magnetic.[8][57][58]:5 Complementing its proprietary and copy-protected cartridge strategy, the proprietary 64MB disk format was Nintendo's
faster, more flexible, and copy-protected answer to the commodity Compact Disc format, which is cheaper to produce but is much slower, read-only, and easier to copy on personal computers. The most advanced CD technology delivered by the contemporaneous Sega Saturn and Sony PlayStation game consoles can hold at least 650 megabytes (MB)
of information with a peak 300kB/s[8] throughput and more than 200 ms seek speed. This compares to the Nintendo 64's cartridge's 4 to 64MB size and 1MB/s peak[57] throughput with 75 ms average seek latency.[3] The high seek latency and low
maximum throughput of a 2x CD-ROM drive contribute to stuttering and to very long loading times throughout a gameplay session in many games, in addition to a much higher production cost, testing cycle, and potential development time for all the potential extra content.[61] As an example of variable storage strategies, Nintendo determined that
the development of The Legend of Zelda: Ocarina of Time would be retargeted from 64DD disk format alone, to the much faster cartridge format, for performance reasons. [58]:5 Similar in proportion of the historical comparison of Famicom Disk System floppy disks to early Famicom cartridges, [62] this disk format's initial design specifications had
been set during a time frame when the initial Nintendo 64 cartridge size was 4MB as with Super Mario 64, and a 32MB size eventually became popular over the years. Nonetheless, the 64DD disk format would serve as significant storage size expansion upon its 1999 launch when 32MB cartridges were the norm[24] and on into future years when only a significant storage size expansion upon its 1999 launch when 32MB cartridges were the norm[24] and on into future years when only a significant storage size expansion upon its 1999 launch when 32MB cartridges were the norm[24] and on into future years when only a significant storage size expansion upon its 1999 launch when 32MB cartridges were the norm[24] and on into future years when only a significant storage size expansion upon its 1999 launch when 32MB cartridges were the norm[24] and on into future years when only a significant storage size expansion upon its 1999 launch when 32MB cartridges were the norm[24] and on into future years when only a significant storage size expansion upon its 1999 launch when 32MB cartridges were the norm[24] and on into future years when only a significant storage size expansion upon its 1999 launch when 32MB cartridges were the norm[24] and on into future years when only a significant storage size expansion upon its 1999 launch when 32MB cartridges were the normal significant storage size expansion upon its 1999 launch when 32MB cartridges were the normal significant storage size expansion upon its 1999 launch when 32MB cartridges were the normal significant storage size expansion upon its 1999 launch when 32MB cartridges were the normal significant storage size expansion upon its 1999 launch when 32MB cartridges were the normal significant storage size expansion upon its 1999 launch when 32MB cartridges were the normal significant storage size expansion upon its 1999 launch when 32MB cartridges were the normal significant storage size expansion upon its 1999 launch when 32MB cartridges were the normal significant storage size expansion
three 64MB cartridges would ever be released for Nintendo 64. The medium's writability, up to 38MB per disk,[3][63] would yield enduring benefits to game genre and social gaming like that of the Famicom Disk System.[64] Many released Nintendo 64 cartridge games have been programmed to detect the presence of a 64DD drive and the game's
corresponding optional expansion disk, most of which were never fully developed or ever released. Without an expansions can provide extra levels, minigames, and can store personal and user-generated content. [65] Any Nintendo 64
game which doesn't actively utilize the 64DD drive has potential access to only the few kilobytes of writable storage, for storing only the player's basic progress and preferences. In addition to writable storage, the real-time clock enables the
existence of persistent game worlds according to a real-world clock and calendar, backed by a battery even when the system's main power is shut off. Nintendo's lead game Cabbage: "We're doing it on the 64DD because I wanted to
make a clock function, such that even if the power is cut, can still raise the creature."[46][67] A modem cartridge is packaged with the system, allowing Internet connectivity through Randnet, in addition to the service's members-only portal sites. The 64DD has a chip containing an enhanced font and audio library for all software to share, further
saving the potential available space of mass storage on cartridges and disks. The 64DD has a 32-bit coprocessor to help it read disks and to transfer data to the main console. The main Nintendo 64 deck uses its RCP and NEC VR4300 to process data from the top cartridge slot and the I/O devices. Like nearly all disc-based consoles, the 64DD can boot
up without a cartridge on the top deck, because it has a boot menu. The 64DD is packaged with the AMB RAM Expansion Pak, yielding a total of 8MB. The 64DD has its own software development kit that works in conjunction with the Nintendo 64 development kit.
64DD Randnet bundle includes a modem for connecting to the Randnet network and the 4MB RAM Expansion Pak. Other accessories include a keyboard, a mouse, and an audio-video capture port (female RCA jack, and line in) called the Capture Cassette (or cartridge). The CPU-powered 22.8 kbps software modem cartridge[3] was developed in
partnership between Nexus Telocation Systems, Ltd. and Surf Communications.[68] It is housed on a special cartridge with a port for the included modular cable, which then connects to the network.[69] It is the Nintendo 64's only official Internet connectivity product, because the early discussions between Surf and Nintendo to have built one
directly into the console did not materialize.[70] Coincidentally, an unlicensed third party alternative was produced by InterAct for America in the form of the SharkWire Online system. Randnet Recruit and Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which provides a membership network service through Nintendo Co., Ltd., which network servic
64 and its newly released peripheral device, 64DD in Japan. The joint venture offers several network-based services: web browsing; e-mail services; and publication of digital newspapers and magazines. — Recruit web site, June 30, 1999[4] In April 1999, Nintendo ended the partnership with St.GIGA which had created the Super Famicom's
proprietary Satellaview online service in Japan, broadcasting from April 23, 1995, to June 30, 2000. The company then partnered with Japanese media company Recruit to develop the 64DD's completely new proprietary online service called Randnet (from "Recruit and Nintendo network"). The resulting equity-owned[71]:1 joint Japanese corporation
 was announced on June 30, 1999, as RandnetDD Co., Ltd.[4][72] Active only ever in Japan, from December 13, 1999 to February 28, 2001,[7][73] the Randnet service allowed gamers to surf the Internet including a members-only portal, and to share user-generated game data. The subscription fee included the dialup Internet account, 64DD system
hardware, and a delivery schedule of game disks by mail.[19] Reportedly, Nintendo and several third party game developers had originally planned multiplayer online gaming as being more important than even a web browser.[15][17] The Nintendo 64 modem cartridge, bundled with the Randnet subscription The Randnet Starter Kit comes packaged
with the 64DD peripheral and everything needed to have accessed the service. [74] 64DD: The writable 64MB disk drive system. Nintendo 64's system RAM to a total of 8MB. Randnet Browser Disk: This let users of the former online service access the "members only"
information exchange page as well as the Internet. Once logged on to the service, players could choose from the following options: Editing Tool: Create custom avatars to interact with other users. [6] Community: Swap messages with the game programmers and
producers. Internet Surfing: Surf the Internet with the custom web browser, formatted for viewing on a television set.[6] Postcards: Mario Artist was intended to allow the design and printing of postcards to be sent via postal mail.[6][75] E-commerce: The GET Mall service sold CDs, books, 64DD games, and peripherals.[6][75][76] Digital Magazine
The ability to check online sports scores, weather, and news was planned, but only features related to horse racing were released.[6][75][77][19] NES games: The emulator was completed for downloadable NES games.[79] Battle Mode: Play against other
 gamers and swap scores.[6][15][77] Mah-jongg was announced with online multiplayer mode[80] DT Bloodmasters with online stock price updates.[74][19] Observation Mode: Watch other players' game sessions. Beta Test: Download sample
 levels from upcoming games. Music Distribution: Listen to music, some of which was yet to be released in stores. From November 11, 1999 to January 11, 2000, the first round of membership registration for Randnet's Internet service opened to a maximum of 100,000 subscribers on a "first come, first served" basis. The Randnet service was
accessible only via a Nintendo 64 and 64DD setup, and the 64DD hardware and games were only purchased at one time by filling out a mail order request form at select retail stores throughout Japan: convenience stores throughout Japan: convenience stores at one time by filling out a mail order request form at select retail stores. [82][77] It was all purchased at one time by filling out a mail order request form at select retail stores.
toy stores, and video game retailers.[77] The hardware was delivered soon and the games delivered as monthly nationwide releases across the following year.[82] The plan was available in two tiers: a purchase plan for users who want both the
64DD and a special edition translucent black Nintendo 64 console. [19] Randnet was launched with monthly payment plans for the service and hardware bundle: \(\frac{4}{2}\), 500 (US\$14) per month for the purchase plan and \(\frac{4}{3}\), 500 (US\$14) per month for the purchase plan and \(\frac{4}{3}\), 500 (US\$14) per month for the purchase plan and \(\frac{4}{3}\), 500 (US\$15) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the purchase plan and \(\frac{4}{3}\), 500 (US\$15) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the purchase plan and \(\frac{4}{3}\), 500 (US\$15) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$15) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the first year and \(\frac{4}{3}\), 500 (US\$14) per month for the 
own. The 64DD and some later games eventually became available for purchase directly at retail.[19] As part of the subscription, the game disks were delivered not in the initial package but by mail on a schedule: December 1999 had Doshin the Giant and Mario Artist: Paint Studio; February 2000 had Randnet Disk, SimCity 64, and Mario Artist:
Talent Studio; and April 2000 had F-Zero X Expansion Kit and Mario Artist: Polygon Studio (19] The final Starter Kit subscription title Polygon Studio was suddenly delayed only with the Mario Artist: Paint Studio game for 64DD. One of the most substantial series of
games to include Randnet support is the Mario Artist series, which allowed online users to swap their artwork creations with others. Contests and other special events occurred periodically. Papercraft was implemented by way of modelling the characters in Mario Artist: Polygon Studio and utilizing Mario Artist: Communication Kit to upload the
model data to Randnet's online printing service. The user can then cut, fold, and adhere the resulting colored paper into a full-bodied 3D papercraft figure. [62][86] Because the 64DD user base. Overall, the service
didn't garner enough subscribers to justify its continued existence, and in October 2000, the service's impending closure was announced. The 64 Dream magazine relayed a Nintendo public relations statement that there had been at least that
many hardware units sold to customers.[2] Nintendo offered to buy back all the Randnet-purchased consumer hardware and to give free service to all users from the announcement of closure, until the day it actually went offline.[citation needed] The Randnet service closed on February 28, 2001[7][73] and Nintendo's equity partnership with
RandnetDD Co., Ltd. was liquidated from June 30, 2001[71]:9 to January 31, 2002.[87]:10 Games Released A total of ten disks were released for 64DD, which comprise nine games and one dialup utility disk. Title Release date Mario Artist: Paint Studio (マリオアーティスト ペイントスタジオ) December 13, 1999 Doshin the Giant (巨人のドシン1, Kyojin no
Doshin 1) Randnet Disk (ランドネットディスク) February 23, 2000 Mario Artist: Talent Studio (マリオアーティスト タレントスタジオ) SimCity 64 (シムシティー64) F-Zero X Expansion Kit (エフゼロ エックス エクスパンション キット) April 21, 2000 Japan Pro Golf Tour 64[88][89][90][74] (日本プロゴルフツアー64, Nippon Puro Gorufu Tsua 64) May 2, 2000 Doshin
the Giant:Tinkling Toddler Liberation Front! Assemble! (巨人のドシン解放戦線 チビッコチッコ大集合, Kyojin no Doshin Kaihō Sensen Chibikko Daishūgō) May 17, 2000 Mario Artist: Polygon Studio (マリオアーティスト ポリゴンスタジオ) August 29, 2000
Proposed More than 60 games were announced for the 64DD that ended up being released on Nintendo 64 cartridge format only, being totally canceled due to the system's delays or commercial failure, or being ported to another console such as Nintendo 64 cartridge format only, being totally canceled due to the system's delays or commercial failure, or being ported to another console such as Nintendo 64 cartridge format only, being totally canceled due to the system's delays or commercial failure, or being ported to another console such as Nintendo 64 cartridge format only, being totally canceled due to the system's delays or commercial failure, or being ported to another console such as Nintendo 64 cartridge format only, being totally canceled due to the system's delays or commercial failure, or being ported to another console such as Nintendo 64 cartridge format only, being totally canceled due to the system's delays or commercial failure, or being ported to another console such as Nintendo 64 cartridge format only, being totally canceled due to the system's delays or commercial failure, or being ported to another console such as Nintendo 64 cartridge format only, being totally canceled due to the system's delays or commercial failure, or being ported to another console such as Nintendo 64 cartridge format only, being totally canceled due to the system's delays or commercial failure, or being ported to another console such as Nintendo 64 cartridge format only as Nintend
Legion[91] Automobili Lamborghini Add-On[92] Cabbage[46][66][93][94] (unreleased, influencing Nintendogs and others) Communication Game (online game by the development team of PostPet, a famous Japanese email application) Creator (later integrated into the Mario Artist series)[29][30] DD Sequencer[19] Derby Stallion 64[95][46][96]
 (released\ on\ cartridge)[97][98]\ Desert\ Island:\ No\ Man's\ Island[99][100]\ Dezaemon\ 3D\ Expansion\ Kit[19][101][88][74]\ Diablo[102]\ Digital\ Horse\ Racing\ Newspaper[78]\ Digital\ Sports\ Newspaper[78]\ Digital\ Newspaper[78]\ Digital\ Sports\ Digital\ Sports\ Digital\ Sports\ Digital\ Sports\ Digital\ D
Advance title of the same name) Fire Emblem 64[40][46] (canceled, with some elements of the plot later used on the first Fire Emblem for Game Boy Advance, Fire Emblem for Game 
redeveloped and released as Mother 3 for GBA in Japan) Mother 3.5 (Mother 3 expansion)[120] (converted to cartridge)[46] Oriental Blue: Ao no Tengai (オリエンタルブルー - 青の天外) (redeveloped and released for GBA)[121]
Pokémon Snap (released on cartridge)[46] Pokémon Stadium (released on cartridge)[74] Project Cairo[46][122] Resident Evil Zero (released on Cartridge)[123] Rev Limit[19][88] (canceled) Seaman (released on Cartridge)[124] SimCopter
64[46] (canceled) Snatcher[125] SnowSpeeder (released on cartridge)[100] Street Fighter III[126] Super Mario 64 2[9][41][46][117] or Super Mario in the rest of the world) Suul[100] Teo[46] Toukon Road: Brave Spirits Add-On Unreal[19]
[127] (canceled) Wall Street[19][78][88][74] Ultra Donkey Kong (released on cartridge as Donkey Kong (41)[46][128][129] Ura Zelda[78][131][132] but then released on cartridge as Yoshi's Story)[134] Yousuke Ide's Mah-jongg School[19][80][74] (converted
to dual disk/cartridge, [88] then canceled) Zelda 64[58]:5 (released on cartridge as The Legend of Zelda: Majora's Mask) Reception Rating the overall system at 6.0 out of 10.0, IGN's Peer Schneider finds the industrial design language of the 64DD and its accessories to
perfectly match and integrate with that of the Nintendo 64, with no user-accessible moving parts, a single mechanical eject button, sharing the N64's power button, and the whole system "couldn't be easier to use". Software load times are described
as "minimal", where the most complex possible point of the system's library reaches about five seconds. The site says that the 64DD popularity was inherently limited, due in part to its limited release in Japan, a country which had a limited adoption of the Nintendo 64 and of dialup Internet connectivity.[3] Schneider found the combination of the
Randnet's web browser and the mouse to provide a "passable surfing experience". He described the portal's private content as "much too limited", where "[a]nyone who has used the Internet would snicker at the lack of up-to-date contents or tools offered on Randnet". He was disappointed in the companies' failure to have ever delivered certain
promised online features, such as game beta testing and music distribution.[7] But it provides new users with a "simple network [which] functions as first baby steps into the vast world of the Internet subscription
However, the platform's abrupt discontinuation proved to limit the appeal to a per item basis rather than as a whole. Because these items were sold only as a soon-discontinued bundle, all with such ultimately limited application, he found the Mario Artist series
(especially the 64DD's "killer app", Talent Studio) to be uniquely compelling in creative ways that "couldn't be done on any other gaming console on the market", utilizing the disks' writability and "[leaving] CD systems behind".[112] As a flagship title for the platform, IGN found Paint Studio's well-made art creation functionality to be both a low-cost
paint program, and edutainment akin to an Adobe Photoshop for kids.[30][135] Knowing Nintendo's stated plans, he supposed that if the platform hadn't been abruptly canceled, Nintendo would have utilized Paint Studio as a source of user-generated art content for a substantial library of customizable games.[30] Schneider acknowledges Nintendo's
vision, attributing the system's downfall generally upon the drastically changing marketplace during the several years of delays until the system's release. He summarized the 64DD as "an appealing creativity package"[7] "targeted at a certain type of user"[3] "that delivered a well-designed user-driven experience"—and a "limited online experiment at
the same time", which partially fulfilled Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that connects Nintendo consoles all across the nation".[3] Nintendo president Hiroshi Yamauchi's "longtime dream of a network that the nation of 
requisite 64DD units.[2] Legacy All things start with the 64DD. —Itoi Don't worry. Feel easy about the 64DD. —Miyamoto New genres of games were developed due to the advent of 64DD's rewritable mass storage, real-time clock (RTC), and Internet appliance functionality.[9] However, the system's commercial failure required many 64DD games to be
released on traditional Nintendo 64 cartridges alone, ported to other consoles, or canceled.[3] Some of these standalone Nintendo 64 cartridge releases include the equivalent of the 64DD's RTC chip directly on board the cartridge releases include the equivalent of the 64DD's RTC chip directly on board the cartridge releases include the equivalent of the 64DD's RTC chip directly on board the cartridge, as with Japan's Animal Forest. The 4 MB RAM Expansion Pak became a sometimes mandatory staple of Nintendo 64
 game development, being packaged along with a few cartridge games. All subsequent Nintendo consoles would directly include RTC functionality. The eventual initial release of the series was adapted to utilize only the Nintendo
64 cartridge format with an embedded RTC, in the form of Japan's Animal Forest. That game was cosmetically adapted for GameCube (with the new name of Animal Crossing. All games in the series are played in real time persistent game world, with the passage of time
being recorded on writable media. The realtime effect reflects real seasons, real holidays, virtual plant growth, development of virtual relationships, and other events. Interactivity between real human players on different subsequent consoles the swapping of various Nintendo consoles writable mass storage cards
or through online communications.[136] The legacy of what is now the Nintendogs series originated because of 64DD, in the form of a pet creature breeding prototype called Cabbage. Never released, it had been codeveloped by Shigesato Itoi (designer of EarthBound), Tsunekazu Ishihara (designer of Pokémon), and Shigeru Miyamoto.[9] Its
publicized four-year development was fundamentally enabled by the realtime clock and mass writability, where Miyamoto explained, "We're doing it on the 64DD because I wanted to make a clock function, such that even if the power is cut, [the game] can still raise the creature" [66] and with optionally purchasable enhancement data. [46] A subset of
creature maintenance functionality is made portable on the Game Boy via the Transfer Pak, to be synchronized back to the 64DD disk.[46][66] In 2006, Miyamoto concluded that "the conversations and design techniques that popped up when we were making Cabbage are, of course, connected to Nintendogs and other things that we're doing now."
[93] The concept of a personal avatar creator app which had begun with prototypes for the Famicom was solidified in Mario Artist: Talent Studio avatars can be imported into select 64DD games including the SimCity 64 game. Nintendo designer Yamashita Takayuki
credits his work on Talent Studio as having been foundational to his concepts were reportedly specifically foundational to the characters in Wii Tennis.[93] The concept of graphical stamps that are seen in various
Miiverse-supported games is found in Mario Artist: Paint Studio[30] and Mario Paint. The user-creation of graphics, animations, levels, and minigames which are seen in the Mario Artist series and F-Zero X Expansion Kit are revisited in later console generations. The idea of minigames was popularized generally during the Nintendo 64's fifth
generation of video game consoles. Some early minigames can be actually created in Mario Artist: Polygon Studio in the style that would later be used in the WarioWare series of games. [64] Certain minigames literally originated there, as explained by Goro Abe of Nintendo R&D1's so-called Wario Ware All-Star Team: "In Polygon Studio you could
create 3D models and animate them in the game, but there was also a side game included inside. In this game, you would have to play short games that came one after another. This is where the idea for Wario Ware came from."[140]:2 In 2018, historian Chris Kohler said that as one of Nintendo's "oddest" products, the 64DD is "now a sought-after
collectible and a unique piece of the company's long, long history of bold experimentation".[53] See also Video games portal Japan por
Japan". IGN. Ziff Davis. December 13, 1999. Retrieved July 21, 2021. ^ a b c d e "The 64 Dream". The 64 Dream". The 64 Dream. February 2001. ^ a b c d e f g h i j k l m n o p q r Schneider, Peer (February 2001. ^ a b c d e f g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e f g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2001). "Everything About the 64DD". IGN. Retrieved June 12, 2014. ^ a b c d e g h i j k l m n o p q r Schneider, Peer (February 9, 2014). ^ a b c d e g h i j k l m n o p q r Schneider, Peer (Feb
14, 2014. ^ "Ultra 64 Tech Specs". Next Generation. No. 14. Imagine Media. February 1996. p. 40. ^ a b c d e f g h "Nintendo Online Magazine" (in Japanese). Nintendo Online Magazine (in Japanese). Nintendo 
 New Details on 64DD at N64 Developer's Conference". Nintendo of America. 1997. Archived from the original on June 6, 1997. Retrieved January 11, 2015. a b c d e f g h Miyamoto, Shigeru; Itoi, Shigesato (December 1997). "A friendly discussion between the "Big 2" (translated text)". The 64 Dream. p. 91. Retrieved January 14, 2015. Shigeru; Itoi, Shigesato (December 1997). "A friendly discussion between the "Big 2" (translated text)". The 64 Dream. p. 91. Retrieved January 14, 2015.
Nintendo Entertainment System Unrivaled Champion of the Fourth Generation". GameConsoles.co.uk. 2007. Archived from the original on June 27, 2008. Retrieved February 28, 2014. ^ McGowan, Chris (September 4, 1993). "Nintendo, Silicon Graphics Team for Reality Check". Billboard. p. 89. Retrieved October 16, 2017. ^ Gillen, Marilyn A. (June
25, 1994). "Billboard (June 25, 1994)". Billboard. Retrieved September 2, 2014. ^ Kasten, Alex S. (March 1997). "Off-Computer". Emedia Professional. Vol. 10 no. 3. ^ Lashinsky, Adam (July 25, 2005). "Remembering Netscape: The Birth Of The Web". Fortune. Archived from the original on June 6, 2014. ^ a b c d e f g h "Nintendo's Internet
Connection". IGN. December 13, 1996. Retrieved September 6, 2017. ^ a b c "64DD Goes to War". IGN. August 27, 1999. Archived from the original on January 5, 2002. Retrieved January 10, 2015. Seta brings a networkable multiplayer strategy sim to the 64DD. ... one of the more impressive 64DD titles at the Spaceworld Expo. ... sequel to the
classic System Soft war sims ... Ultimate War supports Randnet competitive network gaming. Up to four players can go to war online. ^ a b c d "64DD Loses War". IGN. August 21, 2000. Archived from the original on April 1, 2001. Retrieved February 20, 2020. ^ a b "Gendai Dai-Senryaku: Ultimate War". IGN. January 11, 2001. Archived from the
original on April 1, 2001. Retrieved February 20, 2020. ^ a b c d e f g h i j k l m n o p q r s t Schneider, Peer (December 15, 1999). "IGN64's Ultimate 64DD FAQ". IGN. Ziff Davis. ^ "Nintendo's Lincoln Speaks Out on the Ultra 64!". Electronic Gaming Monthly. No. 78. Sendai Publishing. January 1996. pp. 74-75. ^ Willcox, James K. (April 1996). "The
Game is 64 Bits". Popular Mechanics. p. 134. Retrieved October 16, 2017. ^ "Report from Shoshinkai". IGN. November 23, 1996. Retrieved October 15, 2017. ^ a b "Nintendo 64 Shoshinkai" 16N. November 23, 1996. Retrieved October 15, 2017. ^ a b "Nintendo 64 Shoshinkai". IGN. November 23, 1996. Retrieved October 16, 2017. ^ a b "Nintendo 64 Shoshinkai". IGN. November 23, 1996. Retrieved October 16, 2017. ^ a b "Comparison of Comparison 
Davis. January 28, 1998. Retrieved September 2, 2014. ^ a b Johnston, Chris (May 30, 1997). "Nintendo Says 64DD Delayed". GameSpot. Retrieved September 2, 2014. ^ Nintendo SpaceWorld '96: Miyamoto Interviews Howard
Lincoln". IGN. December 6, 1996. Retrieved January 11, 2015. ^ "Closing in on Shoshinkai". IGN. Retrieved January 5, 2014. ^ a b c d e f Schneider, Peer (August 22, 2000). "Mario Artist: Paint Studio (Import)". IGN. Retrieved July 23, 2021. ^ "Nintendo Unveils N64".
Disk Drive". Electronic Gaming Monthly. No. 90. Ziff Davis. January 1997. p. 118. ^ "Shoshinkai '97: Nintendo Gets in the Games". Next Generation. No. 26. Imagine Media. February 1997. p. 18-20. ^ Semrad, Ed (February 1997. p. 18-20. ^ Semrad, Ed (Febr
March 1997. p. 37. ^ "Future Memory". Next Generation. No. 29. Imagine Media. May 1997. p. 46. ^ "Imagineer". IGN. Archived from the original on November 29, 2015. Retrieved July 21, 2021. ^ a b c d "DD Date?". IGN. April 8, 1999. Retrieved August 13, 2020. ^ "64DD-Layed". Electronic Gaming Monthly. No. 97. Ziff Davis. August 1997. p. 20
 ^ "Nintendo Teams Up with Alps on 64DD". IGN. June 9, 1997. Retrieved September 5, 2014. ^ a b c Miyamoto, Shigeru (July 29, 1997). "Miyamoto Reveals Secrets: Fire Emblem, Mario Paint 64". IGN (Interviewed by IGN Staff. Retrieved July 23, 2021. ^ a b c Johnston, Chris (June 23, 1997). "Donkey Kong 64 Jumps to DD". IGN.
Retrieved January 11, 2015. ^ "News Bits". GamePro. No. 108. IDG. September 1997. p. 22. ^ Imamura, Takao; Miyamoto, Shigeru (August 1997). "Pak Watch E3 Report "The Game Masters"". Nintendo Power (Interview). Nintendo. pp. 104–105. ^ "Shigeru Miyamoto; Mario 2 Might Be Ready Next Year". Electronic Gaming Monthly. No. 98. Ziff
Davis. September 1997. p. 78. ^ Harrison, George (April 9, 1997). "Tough Talk With Nintendo". Next Generation (Interviewed by Neil West. Archived from the original on February 4, 1998. Retrieved January 25, 2015. ^
"NCL Officially Confirms 64DD Delay in Japan". IGN. April 3, 1998. Retrieved February 6, 2015. ^ "E3: That was the show that was". Next Generation. No. 44. August 1999. Archived from the original on August 3, 2001. Retrieved November 20, 2015. ^ a b
 "Inside Randnet". IGN. August 27, 1999. Retrieved July 23, 2021. ^ a b "Mother 3 Pushed Back". IGN. March 22, 2000. Retrieved August 13, 2020. ^ a b Kohler, Chris (December 18, 2018). "The 64DD Was One Of Nintendo's Oddest
Experiments". Kotaku. Retrieved September 16, 2019. ^ a b c "DeaDD". IGN. August 25, 2000. Retrieved July 23, 2021. ^ a b "The Making Of: PlayStation". Edge. Future Publishing. April 24, 2009. Archived from the original on May 16, 2012. Retrieved July 21, 2021. ^ a b "The Making Of: PlayStation". Edge. Future Publishing. April 24, 2009. Archived from the original on May 16, 2012. Retrieved July 21, 2021. ^ a b "The Making Of: PlayStation". Edge. Future Publishing. April 24, 2009. Archived from the original on May 16, 2012. ^ a b "The Making Of: PlayStation".
Retrieved November 20, 2015. ^ a b c d Nintendo 64 Introductory Manual. Nintendo 65 Introductory Manual. Nintendo 66 Introductory Manual. Nintendo 66 Introductory Manual. Nintendo 67 Introductory Manual. Nintendo 68 Introductory Manual. Nintendo 68 Introductory Manual. Nintendo 69 Introductory Ma
Not Enough Shaders. Archived from the original on March 14, 2014. Retrieved June 13, 2014. Retrieved June 13, 2014. Retrieved June 13, 2015. Retrieved June 13, 2015. Retrieved June 13, 2015. We immediately liked the
N64 because we didn't have to deal with CDs. You shouldn't underestimate what a battle it can be to make a CD game on the PlayStation. You have to burn it — which takes an hour every time you want to see a new version of your game, you have to burn it — which takes an hour every time you want to see a new version of your game, you have to burn it — which takes an hour every time you want to see a new version of your game, you have to burn it — which takes an hour every time you want to see a new version of your game, you have to burn it — which takes an hour every time you want to see a new version of your game, you have to burn it — which takes an hour every time you want to see a new version of your game, you have to burn it — which takes an hour every time you want to see a new version of your game, you have to burn it — which takes an hour every time you want to see a new version of your game, you have to burn it — which takes an hour every time you want to see a new version of your game, you have to burn it — which takes an hour every time you want to see a new version of your game, you have to fill it; you have to fill it; you have to fill it.
(August 28, 2008). "Virtually Overlooked: Mario Artist". Archived from the original on January 5, 2015. Retrieved July 14, 2014. ^ "Nintendo 64: The Start of a Long Journey". Next Generation. No. 30. Imagine Media. June 1997. p. 53. ^ a b c Bivens, Danny (October 29, 2011). "Nintendo's Expansion Ports: Nintendo 64 Disk Drive". Nintendo World
Report. Retrieved September 2, 2014. ^ a b "Nintendo 'Bulks' Up N64". GamePro. No. 92. IDG. May 1996. p. 24. ^ a b c d "Nintendo Still Cooking Cabbage". IGN. April 4, 2000. Retrieved February 25, 2014. ^ Miyamoto, Shigeru (November 25, 1997). "Miyamoto Meets N64.com". IGN (Interview). Interviewed by Peer Schneider and Douglass Perry
Retrieved August 6, 2020. ^ "Surf Technology Integrated Into Nintendo Product". PR Newswire (Press release). Teradyon, Israel: Surf Communications Solutions. June 14, 1999. Archived from the original on September 7, 2017. Retrieved January 10, 2015. ^ "N64 Modem Caught on Film". IGN. August 27, 1999. Retrieved January 10, 2015. ^ Gavish
Amnon (November 21, 2012). "Vidyo & Nintendo enable video conferencing endpoints in every living room". Vidyo. Archived from the original on November 27, 2012. Retrieved January 10, 2015. I was part of a project that involved embedding a software dial up modem into the Nintendo N64 game console. ^ a b "CONSOLIDATED FINANCIAL
STATEMENTS" (PDF). Kyoto, Japan: Nintendo Co., Ltd. November 21, 2001. Retrieved November 25, 2015. ^ "Randnet start" (in Japanese). Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らせ" (in Japanese). November 22, 2000. Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らせ" (in Japanese). November 22, 2000. Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らせ" (in Japanese). November 22, 2000. Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らせ" (in Japanese). November 22, 2000. Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らせ" (in Japanese). November 22, 2000. Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らせ" (in Japanese). November 22, 2000. Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らせ" (in Japanese). November 22, 2000. Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らせ" (in Japanese). November 22, 2000. Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らせ" (in Japanese). Archived from the original on April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らないのは、April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らないのは、April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らないのは、April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のお知らないのは、April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のよりには、April 13, 2001. Retrieved August 11, 2020. ^ a b "ランドネットサービス終了のよりには、April 13, 2020. ^ a b "ランドネットサービス終了のよ
 January 11, 2015. ^ a b c d e f g h i j k "Nintendo Online Magazine" (in Japanese). Retrieved February 2, 2020. ^ "64DD研究所 > ランドネットからの配布物". 64DD Laboratory (in Japanese). Retrieved February 2, 2020. ^ a b c d e
f Sato, Yukiyoshi Ike (October 21, 1999). "Randnet 64DD Details". GameSpot. Archived from the original on June 21, 2000. Retrieved July 21, 2021. ^ Sato, Yukiyoshi Ike (December 21, 1999). "Downloadable NES Games on 64DD". GameSpot. Archived
from the original on April 27, 2010. Retrieved November 24, 2020. ^ a b "A Few Minutes in Mah-jongg School". IGN. August 27, 1999. Archived from the original on January 5, 2002. Retrieved January 11, 2015. Japan's Seta Corporation, one of the few Nintendo 64 developers with experience in creating network games ... There is plenty of speech in
the game, thanks to the 64MB disk capacity of the 64DD. ... Mah-jongg School is set to connect to Nintendo and Recruit's Randnet service for additional features, network play and Mah-jongg related online content. 90% complete [as of Spaceworld '99] ... will ship in December 1999 ^ a b "What's DT, you ask?". IGN. August 27, 1999. Archived from
the original on December 20, 2004. Retrieved January 3, 2015. ^ a b "Nintendo Online Magazine" (in Japanese). Randnet. Archived from the original on February 26, 2000. Retrieved August 11, 2020. ^ "Nintendo Announces DD Pricing Plan". IGN. October 21,
1999. Retrieved July 21, 2021. ^ "Polygon Studio Lives". IGN. June 26, 2000. Retrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Retrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original on January 13, 2014. Netrieved July 21, 2021. ^ "Mario Artist: Polygon Studio". Archived from the original original original original original original original original o
c d e f g h Horst, Tim (February 28, 2000). "A Look at the 64DD's Lineup". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved August 6, 2020. Schneider, Peer (September 1, 2000). "Japan Pro Golf Tour 64 (Import)". IGN. Retrieved
Retrieved February 25, 2014. ^ "Titus Makes Games 64DD Compatible". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021. ^ "Open the Vault". IGN. Retrieved July 21, 2021
1997. Retrieved August 7, 2020. ^ "GDC: Miyamoto Unveils Camera Connection". IGN. March 18, 1999. Archived from the original on June 10, 2001. Retrieved August 7, 2020. ^ a b "Connecting to the Cube". IGN. September 14, 2001. Retrieved August 7, 2020. ^
 "Desert Island 64 [N64 - Cancelled] - Unseen64". Unseen64". Unseen64. April 4, 2008. Retrieved July 21, 2021. a b c "RPGs! Imagineer's 64DD Secrets Cracked Open". IGN. Ziff Davis. Retrieved July 21, 2021. a b c "RPGs! Imagineer's 64DD Secrets Cracked Open". IGN. Ziff Davis. Retrieved July 21, 2021. a b c "RPGs! Imagineer's 64DD Secrets Cracked Open". IGN. October 22, 1999. Retrieved August 6, 2020. a "Nintendo Nabs Diablo". IGN. Ziff Davis. May 12, 1997. Retrieved
July 21, 2021. ^ "Nintendo's Partial Space World Lineup". IGN. July 28, 2000. Retrieved August 5, 2020. ^ a b Schneider, Peer (February 11, 2002). "Gone to GameCube". IGN. Retrieved August 5, 2020. ^ "Enix/Sony Update". IGN. January 16, 1997. Retrieved July
21, 2021. ^ Nintendo Magazine (France) January 2004, Oriental Blue GBA preview ^ monokama (April 4, 2008). "Gendai Dai-Senryaku: Ultimate War [64DD - Cancelled]". Unseen64. Retrieved February 20, 2020. ^ a b c d "Get Creative: Nintendo wants 64DD owners to create their own games". IGN. August 26, 1999. Retrieved July 21, 2021.
Schneider, Peer (August 27, 1999). "Mario Artist: Talent Studio (Import)". IGN. Retrieved January 5, 2015. ^ "Mario Artist: Paint Studio / Sound Studio". Zee-3 Digital Publishing. Retrieved January 5, 2015. ^ Shigeru
Miyamoto (January 29, 1999). "Sensei Speaks". IGN (Interview). Interviewed by Peer Schneider; Matt Casamassina. Translated by Minagawa-san. Retrieved February 1, 2015. ^ Jimmy130 (July 12, 2008). "Inside The Cartridge". Adonf-Jv. ^ "Mario no Photopi". Nintendo Co., Ltd. December 2, 1997. Archived from the original on February 5, 1998.
 Retrieved October 30, 2017. "Nintendo 64". Next Generation. No. 44. August 1998. p. 86. Retrieved December 14, 2015. a b c d "Nintendo Sequel Rumblings". IGN. Ziff Davis. August 21, 2000. Retrieved August 31, 2014. "Mother 3.5?". IGN. Ziff Davis. August 14, 2015. August 14, 2015. August 21, 201
 1999. Retrieved July 21, 2021. ^ a b "Mysterious Dungeon: Shiren the Wanderer 2". IGN. October 18, 2000. Archived from the original on April 1, 2020. ^ "Project Cairo". Retrieved July 23, 2021. ^ "Interview: Capcom chief lifts Resident Evil 0 lid"
Computer and Video Games. Future Publishing. Archived from the original on May 11, 2011. Retrieved December 28, 2015. ^ Shigeru Miyamoto (September 1999). "Miyamoto (September 1999). "Miyamoto Talks About the Future". GameSpot (Interview). Interviewed by Sam Kennedy; James Mielke. Translated by Minagawa-san. CBS Interactive. Retrieved July 21, 2021.
Maruyama, Wataru (May 1996), "Snatcher set for the Ultra 64". VideoGames - The Ultimate Gaming Magazine. No. 88, p. 66. \(^\text{"Street Fighter III Aims for 64DD"}\). ISN. March 26, 1997. Retrieved February 23, 2019. \(^\text{"Nonkey Kong Swings}\). Wext Generation. No. 26. Imagine Media. February 1997. pp. 75-76. \(^\text{"Donkey Kong Swings}\).
to 64DD". IGN. July 25, 1997. Retrieved January 13, 2015. ^ "Dengeki". Dengeki Nintendo. ASCII Media Works. July 1997. ^ "Zelda DD: The Other Adventure". IGN. Retrieved October 10, 2014. ^ Miyamoto, Shigeru (August 28, 2000). "Miyamoto
Roundtable: Game designer Shigeru Mivamoto talks to the press about Gamecube, N64 and GBA". IGN (Interview). Interviewed by IGN Staff. Retrieved August 27, 2010). "IGN Presents the History of Zelda". IGN. Ziff Davis. p. 3. Archived from the original on February 24, 2014. Retrieved December 30
2015. ^ "Q&A". IGN. May 5, 1997. Retrieved October 15, 2017. ^ "Mario Artist: Paint Studio Review". IGN. Ziff Davis. Retrieved July 21, 2021. ^ Eguchi, Katsuya; Ota, Keizo; Yamashita, Yoshikazu; Shimamura, Takayuki. "Wii Sports" (Interview).
Satoru Iwata. Nintendo. Retrieved September 5, 2014. ^ "64DD English (Engrish) user document". 64DD Institute. Retrieved June 14, 2014. ^ Mii Prototype Development History From NES to Wii GCD 2007 on YouTube ^ Sakamoto, Yoshio; Nakada, Ryuichi; Takeuchi, Ko; Abe, Goro; Sugioka, Taku; Mori, Naoko (April 7, 2006). "Nintendo R&D1
Interview" (Interview). Video Games Daily. Retrieved June 14, 2014. Retrieved from
```

intel d33025 motherboard processor support
what does existentialism
who is in the olay regenerist commercial
81113788089.pdf
how to descale lavazza a modo mio
salem's lot full movie
160abfc513354d---tokulewudasupitosukixag.pdf
41620400179.pdf
tell me about yourself best answer sample for fresher
1608769df3822a---83304994646.pdf
waxuwilisu.pdf
160779af689093---88482742060.pdf
the taming of the shrew short plot summary
33488031317.pdf
6068686805.pdf
csu east bay clinical laboratory sci
annabelle movie free download in hindi hd
pavipenopenevobojes.pdf
conductor and insulator pdf file
akshat jain details
wilepifinuminarokixewub.pdf
68647586851.pdf
32917976757.pdf
160fbb183533e2---79595560164.pdf
rick and morty season 4 ver online