The first video game consoles were produced in the early 1970s. Ralph H. Baer devised the concept of playing simple, spot-based games on a television screen in 1966, which later became the basis of the Magnavox Odyssey in 1972. Inspired by the table tennis game on the Odyssey, Nolan Bushnell, Ted Dabney, and Allan Alcorn at Atari, Inc. developed the first successful arcade game, Pong, and looked to develop that into a home version, which was released in 1975. The first consoles were capable of playing only a very limited number of games built into the hardware. Programmable consoles using swappable ROM cartridges were introduced with the Fairchild Channel F in 1976, though popularized with the Atari 2600 released in 1977.

Handheld consoles emerged from technology improvements in handheld electronic games as these shifted from mechanical to electronic/digital logic, and away from light-emitting diode (LED) indicators to liquid-crystal displays (LCD) that resembled video screens more closely. Early examples include the Microvision in 1979 and Game & Watch in 1980, and the concept was fully realized by the Game Boy in 1989.

Both home and handheld consoles have become more advanced following global changes in technology. These technological shifts include improved electronic and computer chip manufacturing to increase computational power at lower costs and size, the introduction of 3D graphics and hardware-based graphic processors for real-time rendering, digital communications such as the Internet, wireless networking and Bluetooth, and larger and denser media formats as well as digital distribution.

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<h3>Type of gaming console</h3><br> 
Microconsole
```

A microconsole is a home video game console that is typically powered by low-cost computing hardware, making the console lower-priced compared to other home consoles on the market. The majority of microconsoles, with a few exceptions such as the PlayStation TV and OnLive Game System, are Android-based digital media players that are bundled with gamepads and marketed as gaming devices. Such microconsoles can be connected to the television to play video games downloaded from an application store such as Google Play.
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Dedicated Console
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Some consoles are considered dedicated consoles, in which games available for the console are "baked" onto the hardware, either by being programmed via the circuitry or set in the read-only flash memory of the console. Thus, the console's game library cannot be added to or changed directly by the user. The user can typically switch between games on dedicated consoles using hardware switches on the console, or through in-game menus. Dedicated consoles were common in the first generation of home consoles, such as the Magnavox Odyssey and the home console version of Pong, and more recently have been used for retro style consoles such as the NES Classic Edition and Sega Genesis Mini.

Dedicated consoles were very popular in the first generation until they were gradually replaced by second generation that use ROM cartridges. The fourth generation gradually merged with optical media.

A secondary PCB that connects to the motherboard that would be used for additional functions. These may include components that can be easily replaced later without having to replace the full motherboard.

```
Central Processing Unit
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The main processing chip on the console that performs most of the computational workload.

The consoles' CPU is generally defined by its word size (such as 8-bit or 64-bit), and its clock speed or frequency in hertz. For some CPUs, the clock speed can be variable in response to software needs. In general, larger word sizes and faster clock sizes indicate better performance, but other factors will impact the actual speed.

Another distinguishing feature for a console's CPU is the instruction set architecture. The instruction set defines low-level machine code to be sent to the CPU to achieve specific results on the chip. Differences in the instruction set architecture of CPU of consoles of a given generation can make for difficulty in software portability. This had been used by manufacturers to keep software titles exclusive to their platform as one means to compete with others.[14] Consoles prior to the sixth generation typically used chips that the hardware and software developers were most familiar with, but as personal computers stabilized on the x86 architecture, console manufacturers followed suit as to help easily port games between computer and console.[15]

Newer CPUs may also feature multiple processing cores, which are also identified in their specification. Multi-core CPUs allow for multithreading and parallel computing in modern games, such as one thread for managing the game's rendering engine, one for the game's physics engine, and

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</head>
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<!-- table -->
another for evaluating the player's input.
<hr>
<thead>

Gaming console
Price
```

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</thead>

Microconsole
Microconsole

$50

Dedicated Console
$80
```



