

Differences between Microprocessor and Microcontroller

| Parameters | Microprocessor | Microcontroller |
|--|--|---|
| Applications | Gaming, web browsing, document creation etc. | Dedicated for specific tasks (Camera, washing machine etc.) |
| Internal Structure | Memory and I/O devices connected externally | CPU, memory and I/O are present internally |
| Cost | High | Low |
| Power Consumption | High | Low |
| Memory (RAM) | 512 MB to up to 32 GB | 2KB to up to 256 KB |
| Storage (ROM) | Hard Disk (128 GB to up to 2 TB) | Flash memory (32 KB to 2 MB) |
| Peripheral Interfaces | USB, UART, High speed Ethernet | UART, I2C, SPI |
| Size of registers, Adress and Data bus | 32 bit or 64 bit | 8 bit, 16 bit or 32 bit |