

Compare, distinguish and explain what is the difference between Microcontroller and Microprocessor. Comparison and Differences.

Difference between Microcontroller and Microprocessor

1. Used to execute big and generic applications. Used to execute a single task with one application.
2. Very high processor speeds of the order of GHz (many times faster). Much lower processing speeds ranging from as low as 4kHz to a few MHz
3. It is a stand-alone device. RAM, ROM, I/O peripherals and Timers have to be interfaced separately. The CPU, RAM, ROM, I/O Peripherals and Timers are all on the same chip.
4. Suited for applications where time and accuracy are critical (Personal Computers). Suited for applications where cost, power and space are critical (Embedded Systems)