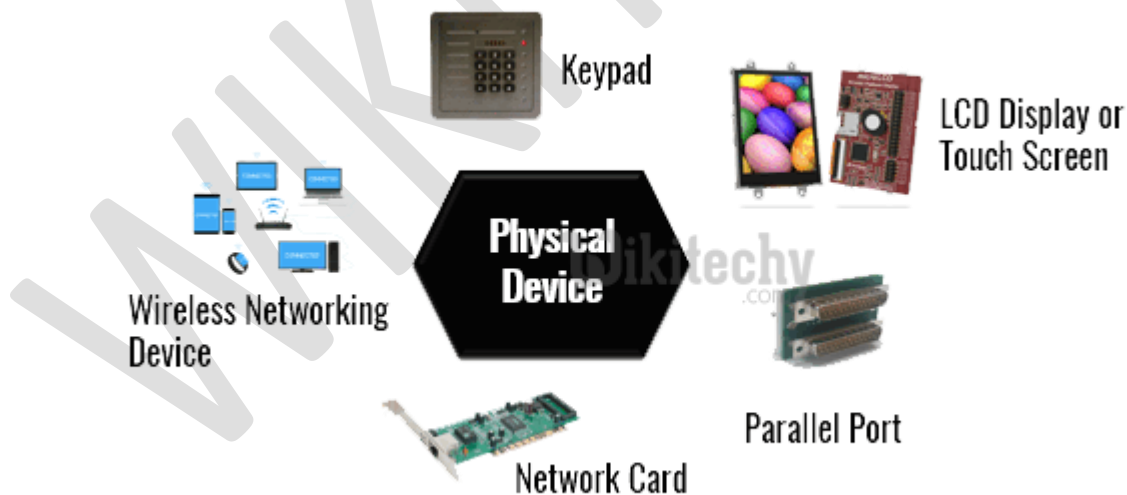


Software for Embedding in a System Part 2

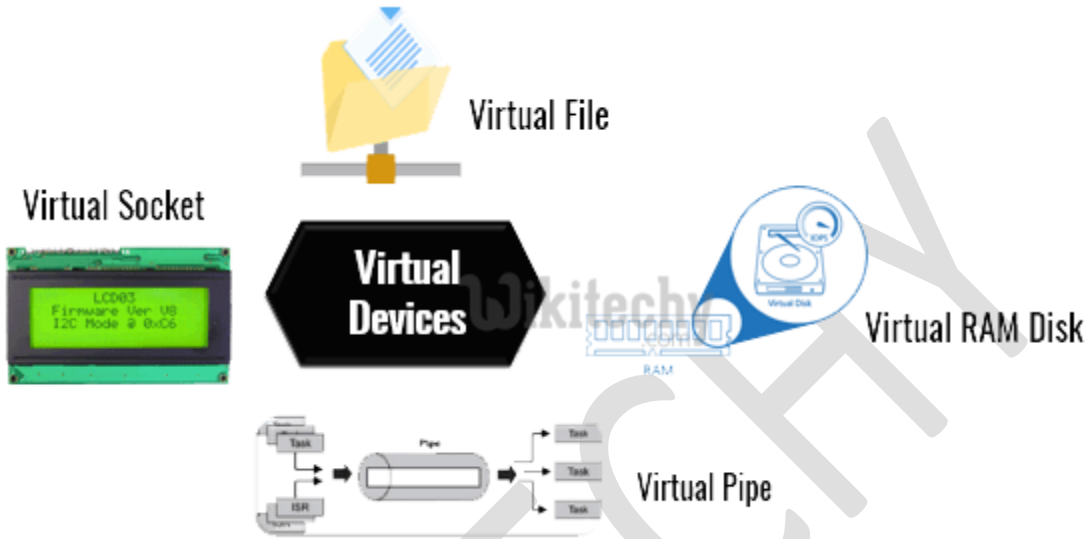
- Device drivers
- Device manager
- OS
- RTOS and
- Software tools

Devices

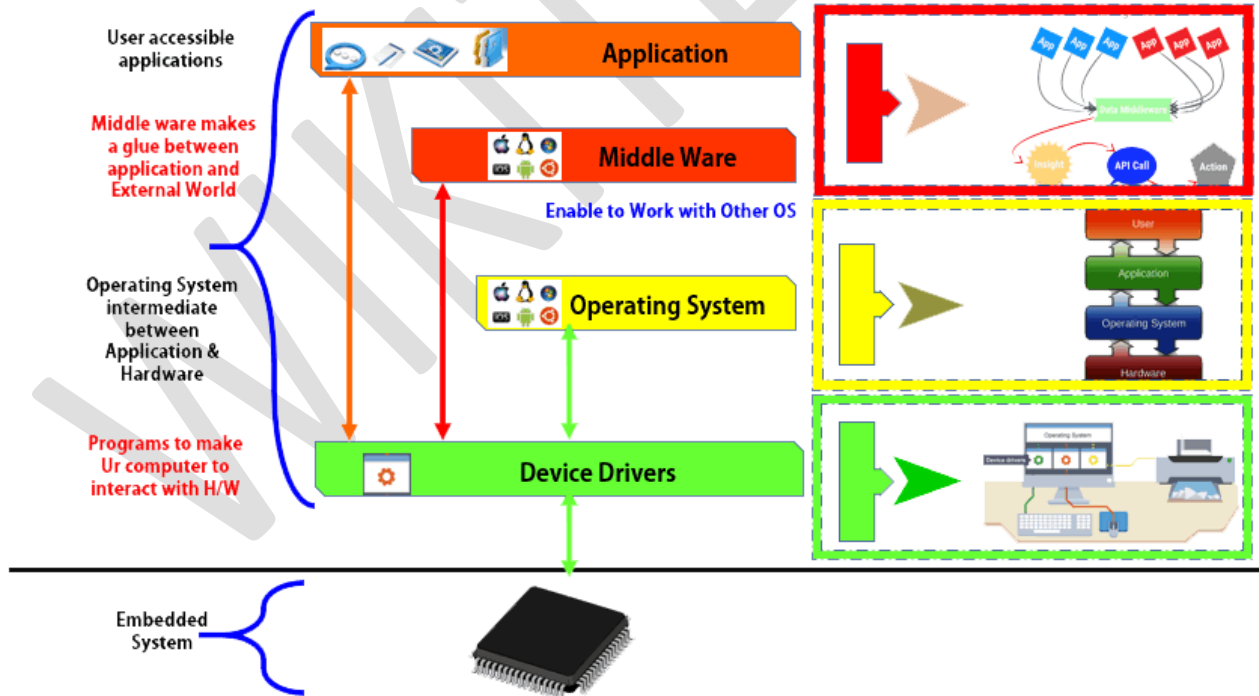
- In an embedded system, there are number of physical devices.
- **Physical devices** - keypad, LCD display or touch screen, memory stick (flash memory), wireless networking device, parallel port and network card in an embedded system, there are number of virtual devices. Integration of high-level components.



- **Virtual devices** - pipe, file, RAM disk, socket



Device Driver / Device Manager



Device Driver

- A device driver is software for controlling (configuring), receiving and sending a byte or a stream of bytes from or to a device.
- A set of generic functions, such as create (), open (), connect (), listen (), accept (), read (), write (), close (), delete () for use by high level programmers. Each generic function calls a specific software (interrupt service routine), which controls a device function or device input or output.

Device controls and functions

- By Calling an ISR (also called Interrupt Handler Routine) on hardware or software interrupt.
- Placing appropriate bits at the control register or word.
- Setting status flag(s) in the status register for interrupting, therefore running (driving) the ISR, Resetting the status flag after interrupt service.

For More Details Click Here:

<https://www.wikitechy.com/tutorials/embedded-systems/software-for-embedded-in-a-system-part-2>

