Computer component and their functions

Identifying specialized input/output devices
Identifying specialized input devices

- Game Controllers
- Digital Cameras: Still and Video
- Scanners
- Graphics Tablets
- Bar Code Reader
- Radio Frequency ID (RFID)
- Touch Screen
- Sensors and Probes
- Remote Controls
- Security Devices
- Specialized Input Devices
Identifying specialized output devices

- Projectors
- Plotters
- Voice synthesizers
- Control devices/Robots
Lesson Four

Connecting Devices to A Computer

• Peripheral connected to the back of system unit through a port

• Port is a general term for the connectors into which wires are plugged

• Most peripheral devices now use USB connections
Connection Devices

• Universal Serial Bus
  – Designed to accept a variety of devices (keyboard, mouse, printer,.....)
  – Provide some amount of electrical power
  – Facilitates assembling and moving a computer
  – Versions of USB
    • USB 1.1
    • USB 2.0(newer computers, 40 times faster)
Connection Devices

• Universal Serial Bus
  – Types of USB
    • Type A USB (mouse: key for one orientation)
    • Type B USB (digital camera: no connecting wire)
Connection Devices

• USB Hub
  – Used to provide multiple USB ports (up to 127)
  – Hot-swappable: safely plug/ remove without shutting down the host computer
  – Some of them provide additional power
Connection Devices

• Wireless Devices
  – Not directly wired to system unit (keyboard, mouse)
  – Use radio waves or infrared light (receiver plugged with USB)
  – Required batteries replaced periodically
  – Others use infrared light instead of radio waves
  – Standards:
    • **Wireless fidelity (WiFi)**
      enables computers and printers to be networked together
    • **Bluetooth** (very short distances), used to connect:
      – cell/smartphones to hands free headsets
      – MP3 players and headphones
      – Some Wireless keyboard and mice
      – If no built in Bluetooth a dongle is required
Connection Devices

• FireWire
  – Apple computer version of IEEE for high performance serial bus
  – Similar to USB
  – Advantage: use with device require very high rates of data transfer (digital video camera)
  – Transfer rate: 400 megabits per second (USB 2.0), now 800 megabits per second
Connection Devices

• Small Computer System Interface (SCSI)
  – Older connection method (1986)
  – Recent speeds 1.280 megabit per seconds
  – Need device called a terminator at the end of the bus

• Device manager
  – Provide list of internal and external devices
  – Tells if any of them having problem
  – Open from control panel