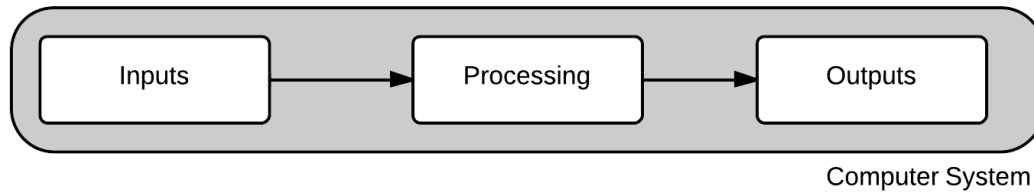


Computers are everywhere today. **Computer systems** have three components: **Inputs**, **Processing** and **Outputs**.



Data is put into a computer using an input device (e.g. a keyboard). The computer processes the information in some way before sending it to an output device (e.g. a display). Computer systems are able to communicate with other computer systems. They do this by using **interfaces**.

There are three types of computer system:

Type	Meaning	Example
Dedicated system	A computer system dedicated to one task	A computer controlling a robotic arm in a car factory
Embedded system	A dedicated system which is part of a larger mechanical or electrical system	A washing machine controller; A digital camera processor
General purpose system	Used for many different purposes. For instance, playing music, playing games, email, Internet browsing	A personal computer; A tablet computer; A smartphone

Computers have become very important in modern life. Embedded systems are used in devices such as microwaves and digital cameras. They are also used in other household appliances such as washing machines and thermostats.

- Hardware is the physical components which we use in computer systems for input, processing and output. Examples are a display, mouse, motor, keyboard, printer, CPU or motherboard.
- Software is the program code which is executed on the CPU. Operating Systems and applications are both types of software.

Examples of Embedded Systems



Washing Machine



Digital Camera



Smart Thermostat