

CPU

A central processing unit (CPU), also called a central processor or main processor is the electronic circuitry within a computer that executes instructions that make up a computer program.

Functions of a CPU

1. Fetch
2. Decode
3. Execute
4. Store

- Fetch: Each instruction is stored in memory and has its own address. The processor takes this address number from the program counter, which is responsible for tracking which instructions the CPU executes.

- Decode + All programs to be executed are translated into Assembly instructions. Assembly code must be decoded into binary instructions.

- Execute + while executing instructions the CPU can do one of three things: Do calculations with its ALU, move data from one memory location to another.

- Store + CPU must give feedback after executing an instruction, and the output data is written to the memory.