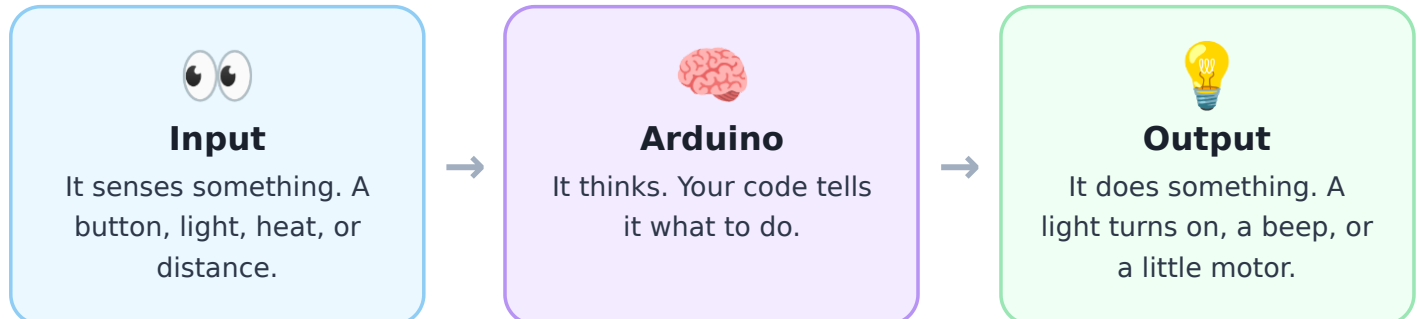


What is an Arduino UNO?

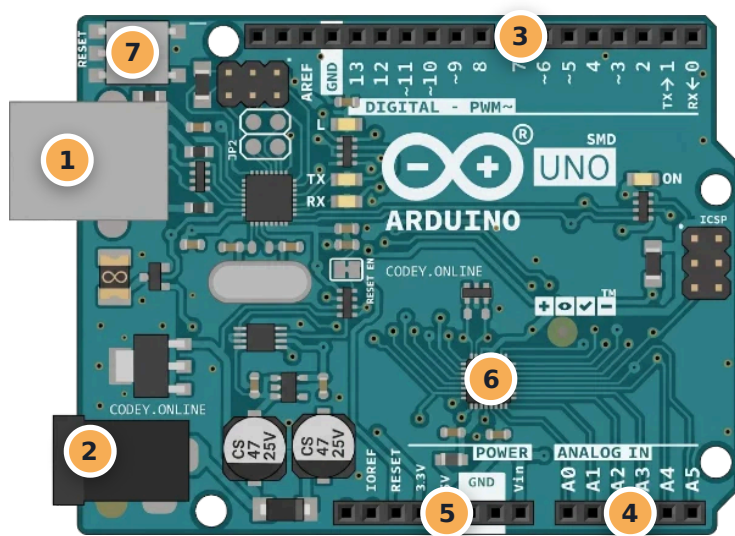
The Arduino is a tiny computer. You tell it what to do, and it does it. Again and again, without getting tired.

How an Arduino thinks



Example: the distance sensor sees that you come close (input). The Arduino thinks: "too close!" And the buzzer starts beeping (output). That is how a parking sensor in a car works.

What is on the board?



- 1 USB port: this is where the cable to your computer goes. It gets power and code through it.
- 2 Power connector: for a battery or adapter (7-12V), when you are not using a computer.
- 3 Digital pins D0 through D13: on or off. For lights, buttons, and buzzers.
- 4 Analog pins A0 through A5: measure how much. For example, how much light there is.
- 5 Power pins: 5V (plus) and GND (minus) give power to your parts.
- 6 The chip: the brain. This is where your code goes.
- 7 Reset button: starts your code again.

Two words you will see often:

- **5V** is the plus. This is where the power comes from (5 volts, just like a phone charger).
- **GND** (ground) is the minus. This is where the power goes back. Every part needs a wire to GND.

Pins are the little holes on the side. You put wires in them. A pin can be an **input** (it listens) or an **output** (it gives power). You decide that in the code.