

Introduction to Arduino

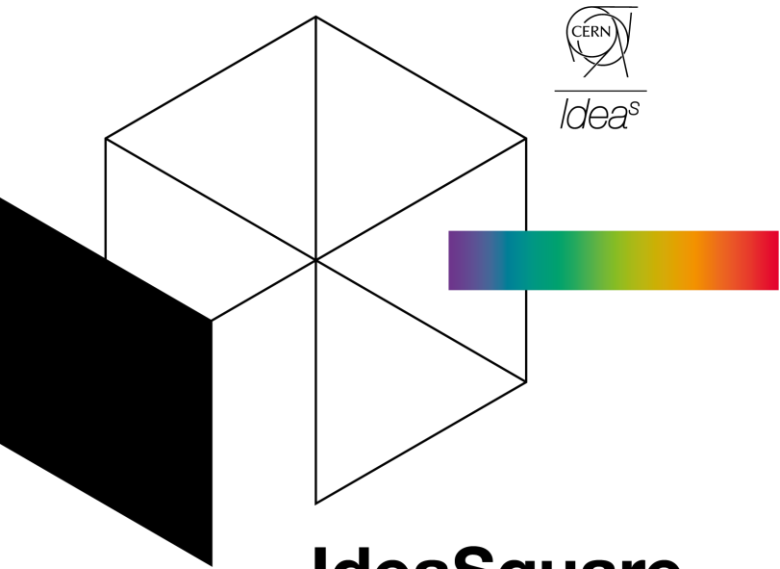
19.01.2023

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Idea^s





IdeaSquare

The innovation space at CERN

Hardware

1. **Arduino**
2. **The Breadboard**
3. **Motion Sensor**
4. **Buzzer**
5. **LED**
6. **Jumpers**
7. **Resistors**

Software

1. **The Arduino IDE**



Hardware

refers to the physical components of the computer system

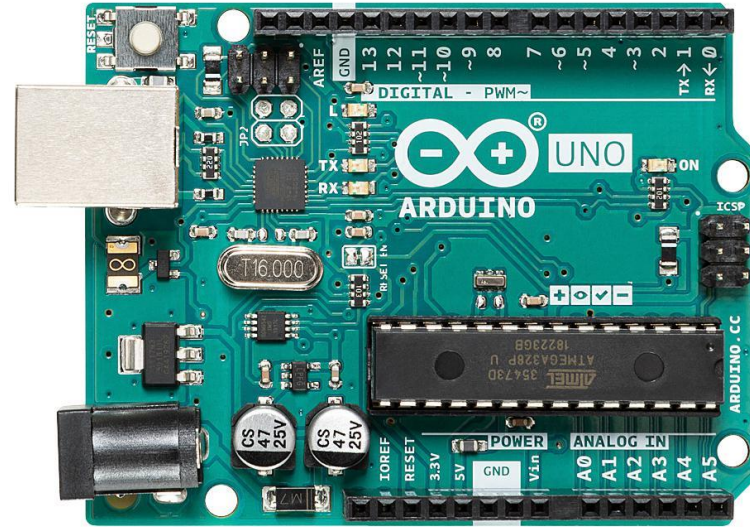
(as opposed to the software)

The Arduino

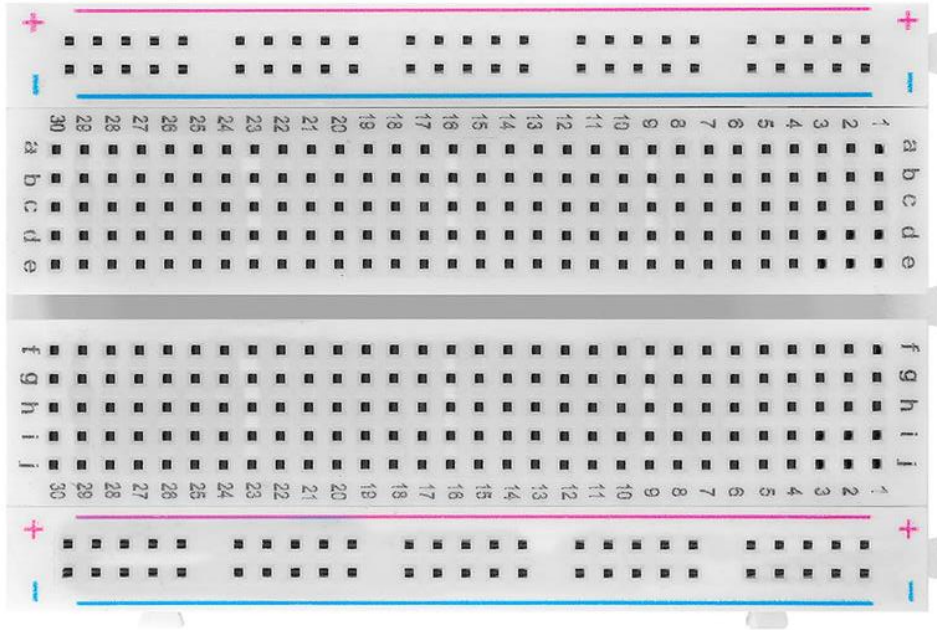
Microcontroller: small computer

Used for electronics projects

Easy to program and use



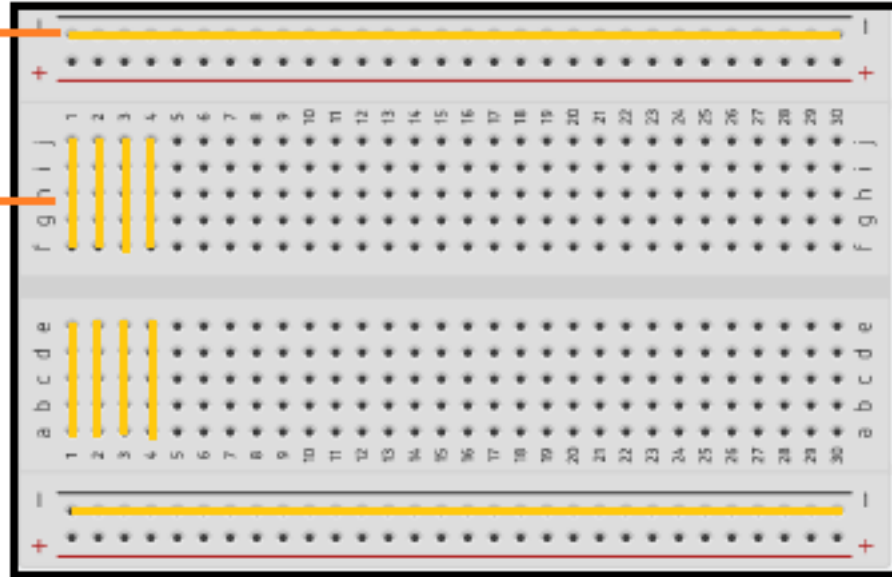
The Breadboard



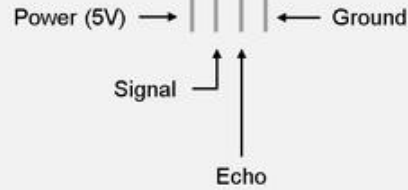
The Breadboard

Horizontally

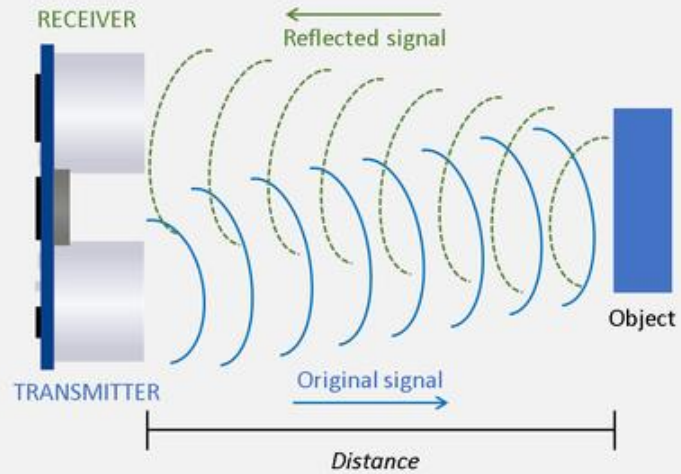
Vertically



The Motion Sensor



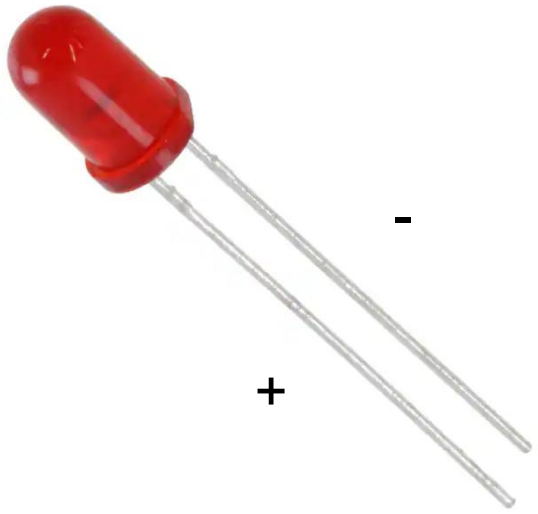
Teachwithict.com



The Buzzer



The LEDs



The Jumpers

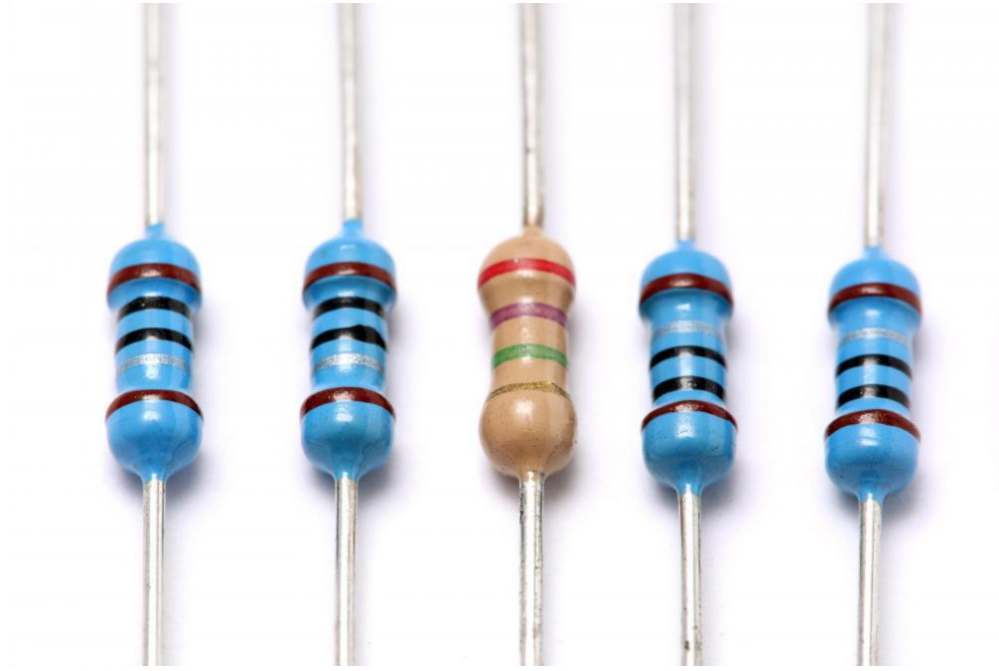
Long



Short



The Resistors

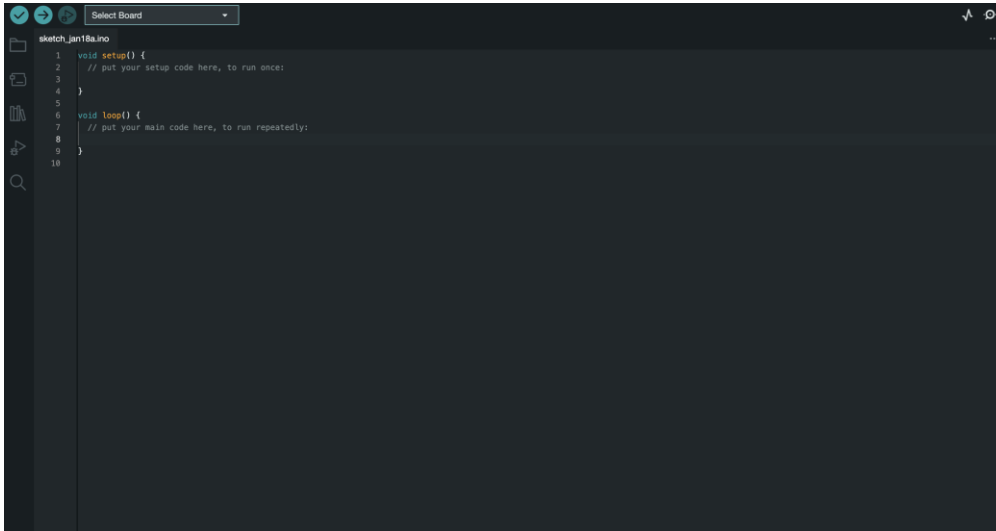




Software

term used to refer to applications, scripts and programs that run on a device

The Arduino IDE



```
sketch_jan18a.ino
1 void setup() {
2   // put your setup code here, to run once:
3 }
4
5
6 void loop() {
7   // put your main code here, to run repeatedly:
8
9 }
10
```

Program that connects the
Arduino hardware to the
computer

Let me show you!



Questions?



**Let's move onto
the hands-on part!**



Idea^s