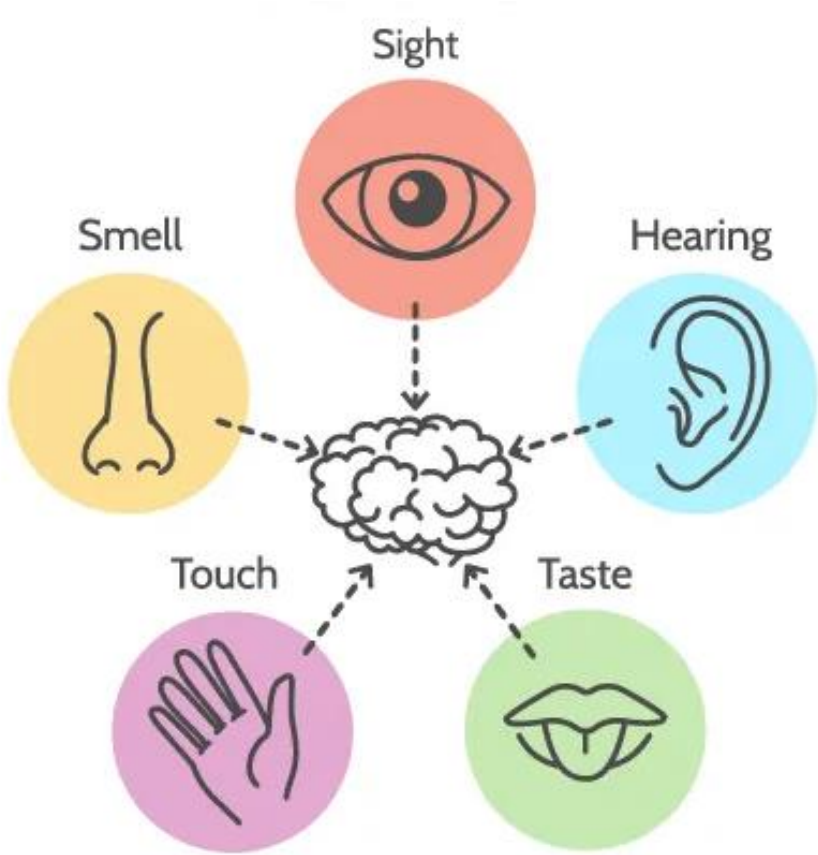
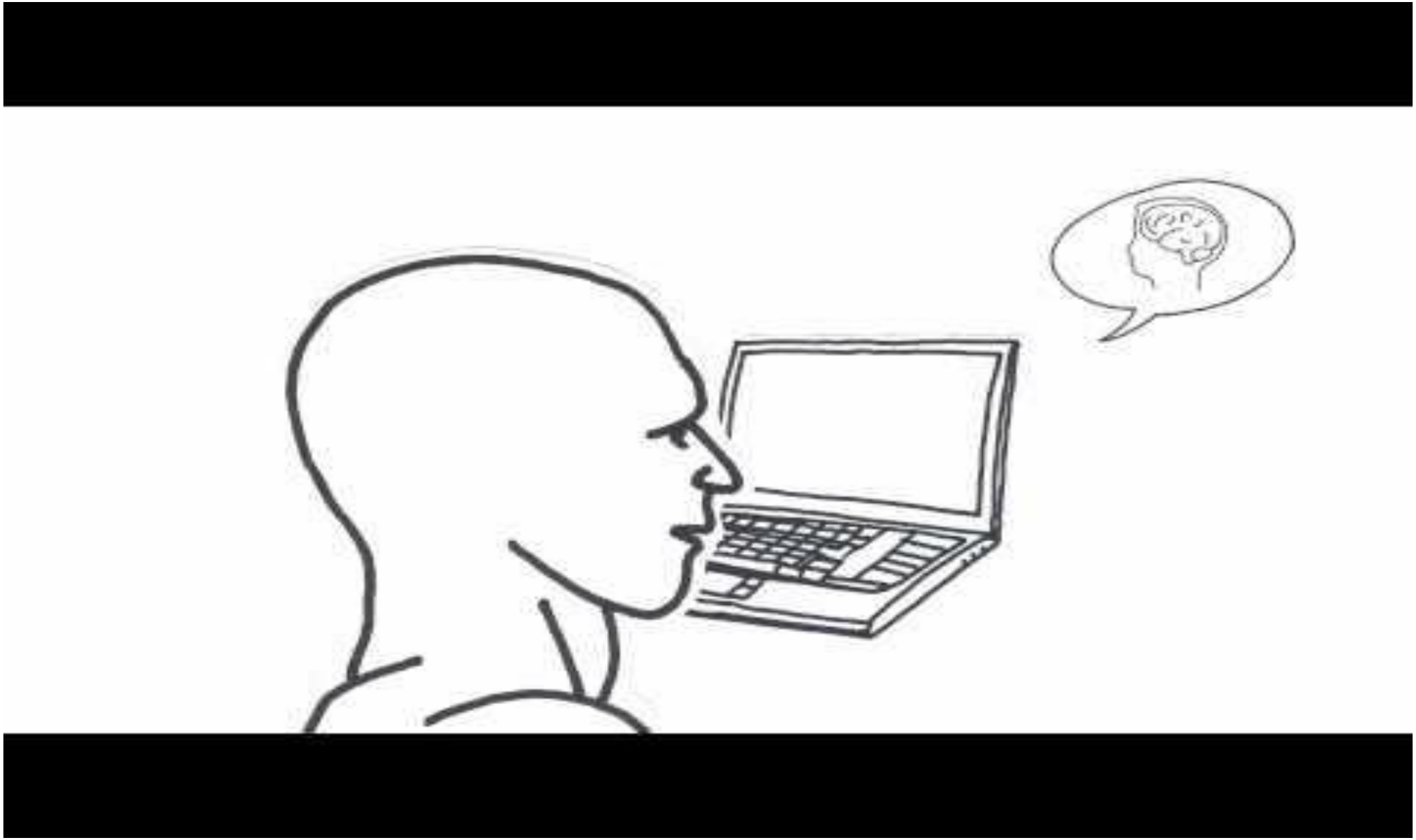
Internetul Lucrurilor

Senzori

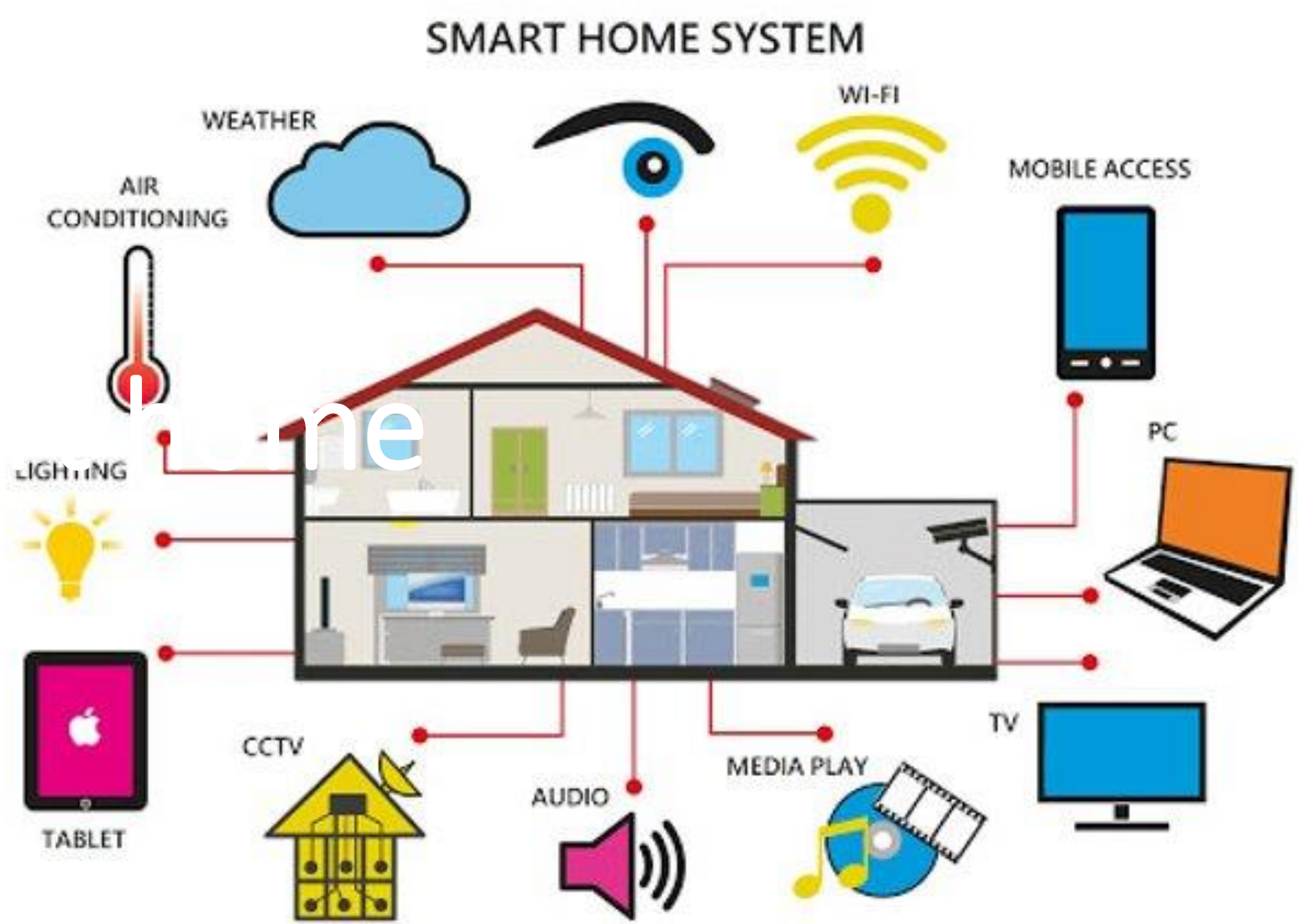
Achiziție semnal

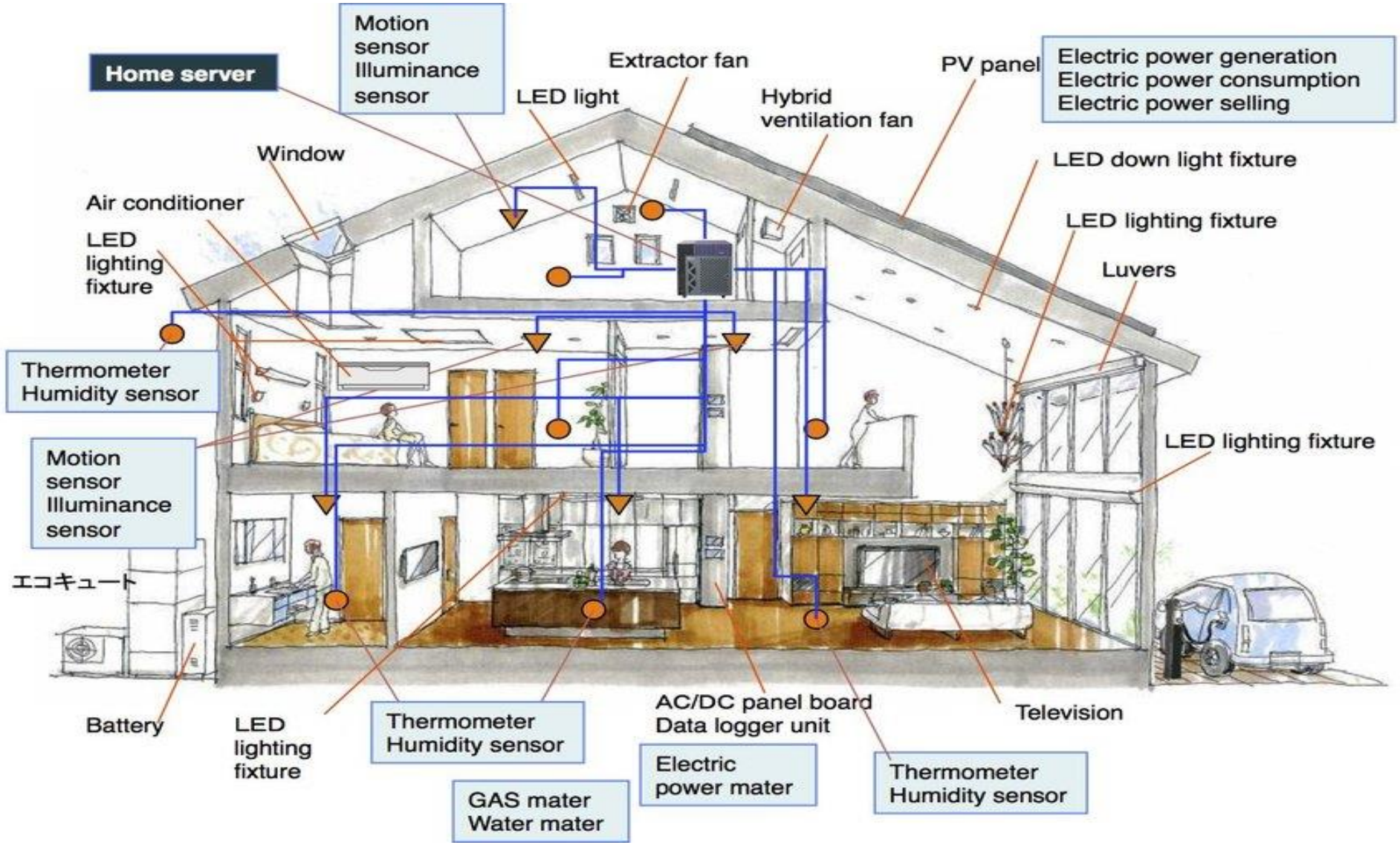
Senzori





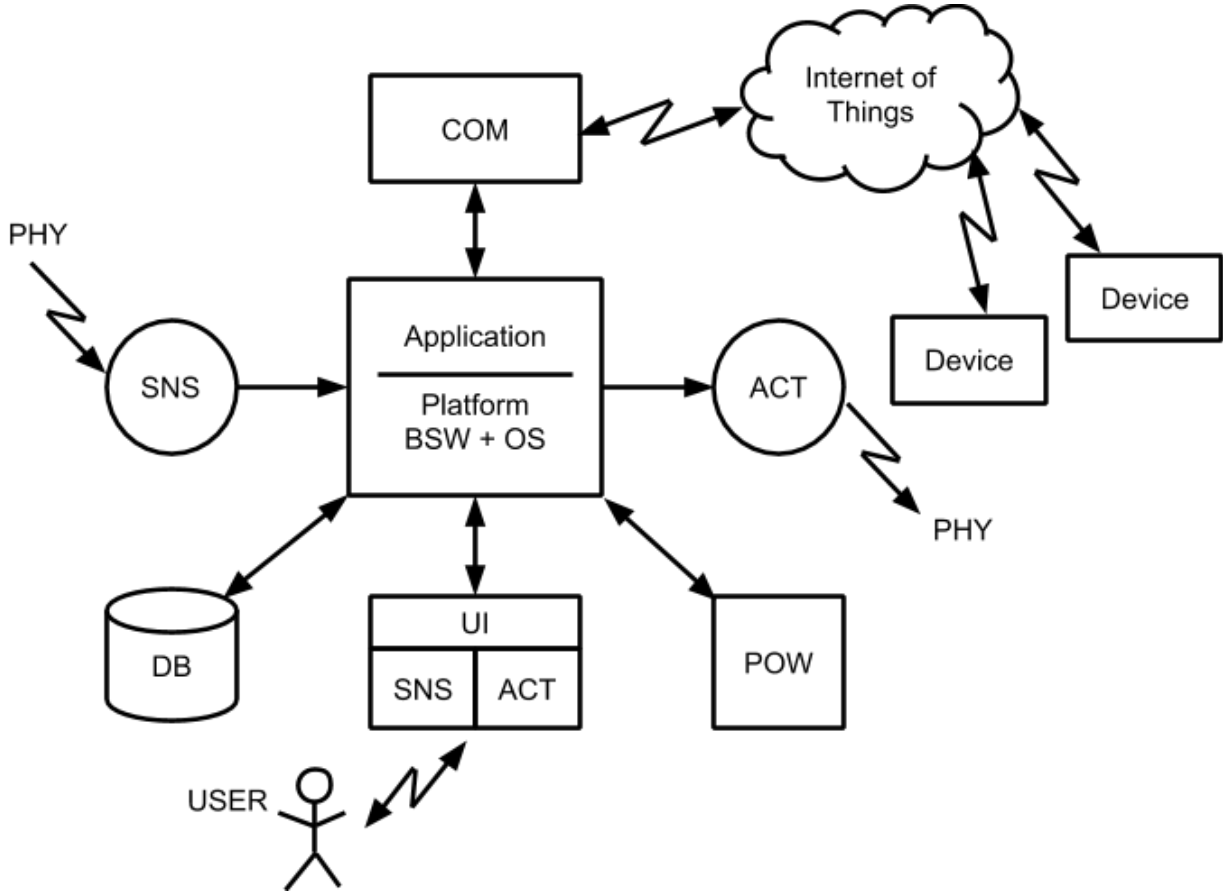
https://www.youtube.com/watch?v=v25PCV_IJCw


SMART HOME SYSTEM
WEATHER
WI-FI
AIR CONDITIONING
MOBILE ACCESS
PC
TABLET
CCTV
AUDIO
MEDIA PLAY
TV


Home server
Motion sensor Illuminance sensor
Extractor fan
LED light
Hybrid ventilation fan
PV panel
Electric power generation
Electric power consumption
Electric power selling
Window
LED down light fixture
Air conditioner
LED lighting fixture
LED lighting fixture
Luvers
Thermometer Humidity sensor
Motion sensor Illuminance sensor
LED lighting fixture
エコキュート
Battery
LED lighting fixture
Thermometer Humidity sensor
AC/DC panel board Data logger unit
Television
Electric power mater
Thermometer Humidity sensor
GAS mater Water mater

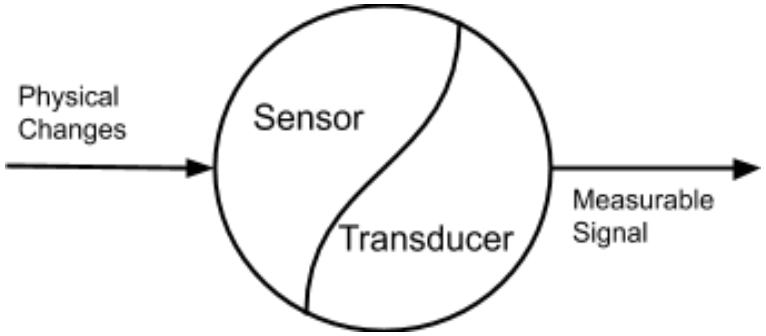
Tipuri de interacțiuni

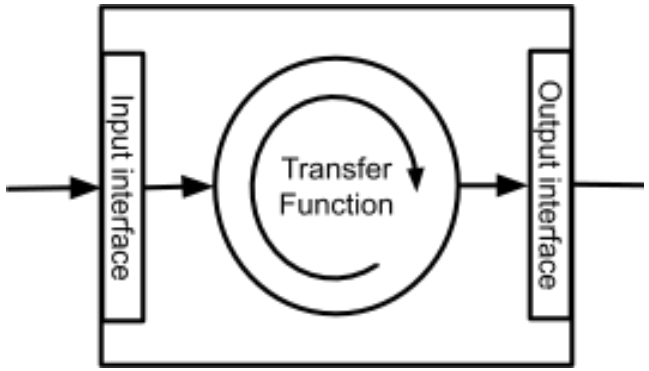
- Interacțiuni cu Utilizatorul
- **Interacțiuni cu Mediul**
- Interacțiuni cu Dispozitive (IoT)



Senzor

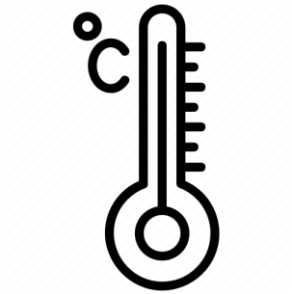
Totalitatea de componente realizate prin ME, EE, si SWE care Transformă mărime fizică din mediu într-un semnal intern al sistemului

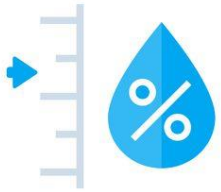


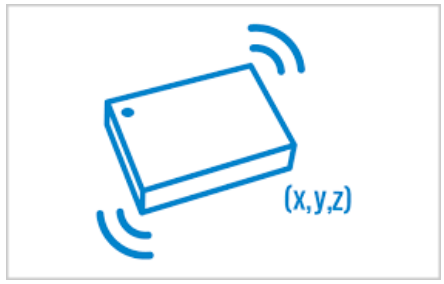


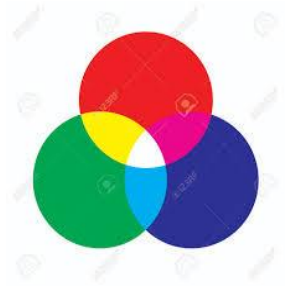
- Senzor – simte schimbare din mediu și transforma în mărime măsurabila
- Traductor – transformă mărime măsurabila în semnal electric

Clasificare 1. Natura parametrului

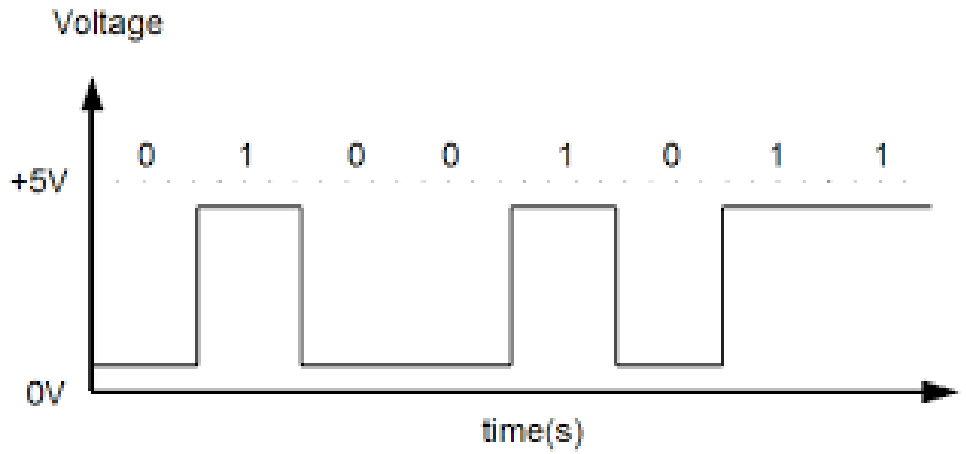


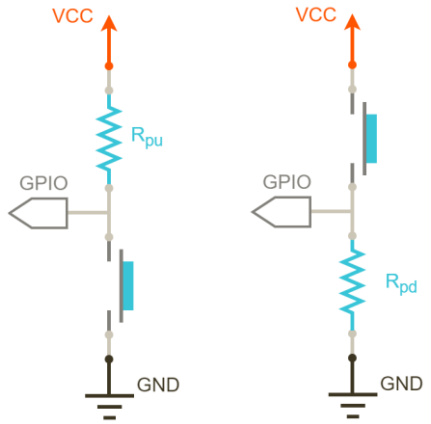




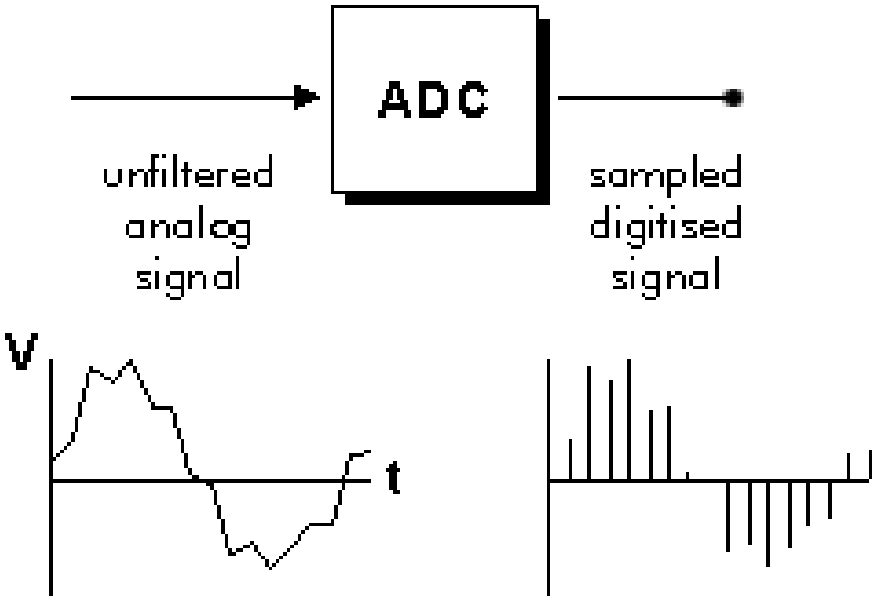


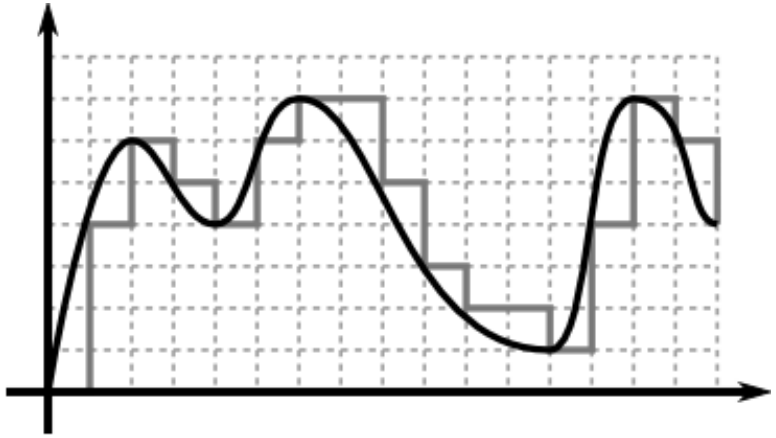
Clasificare 2. Interfață - Binară

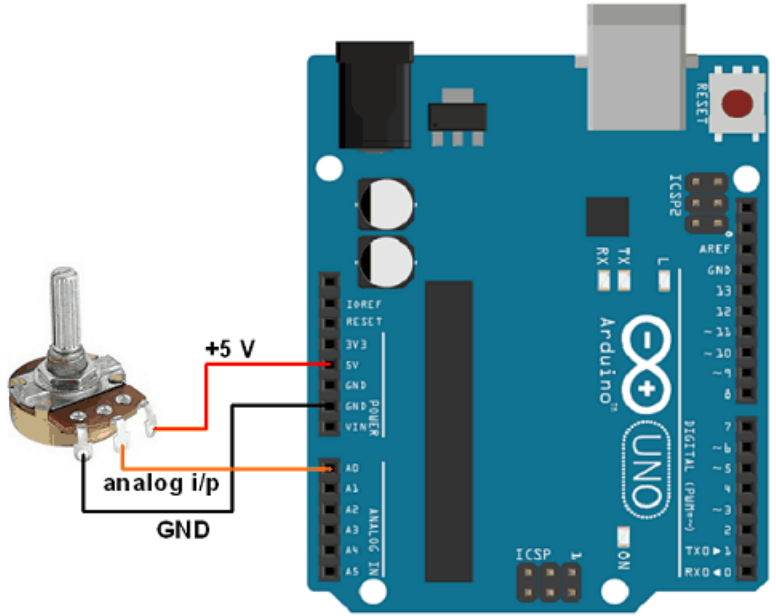




Clasificare 2. Interfață - Analogică

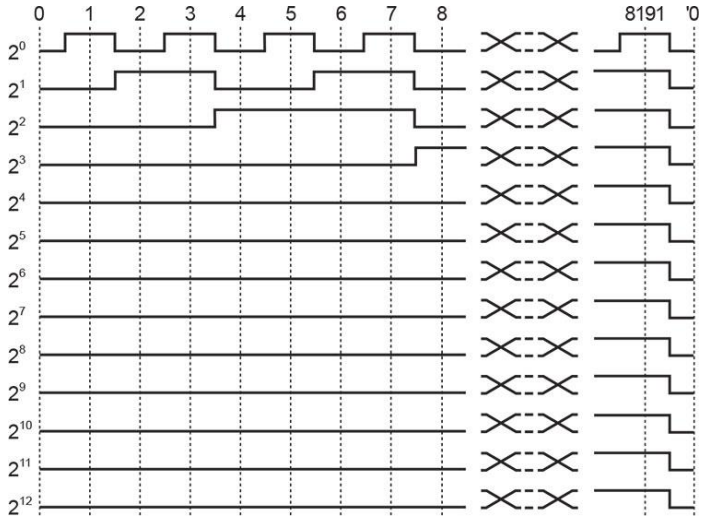




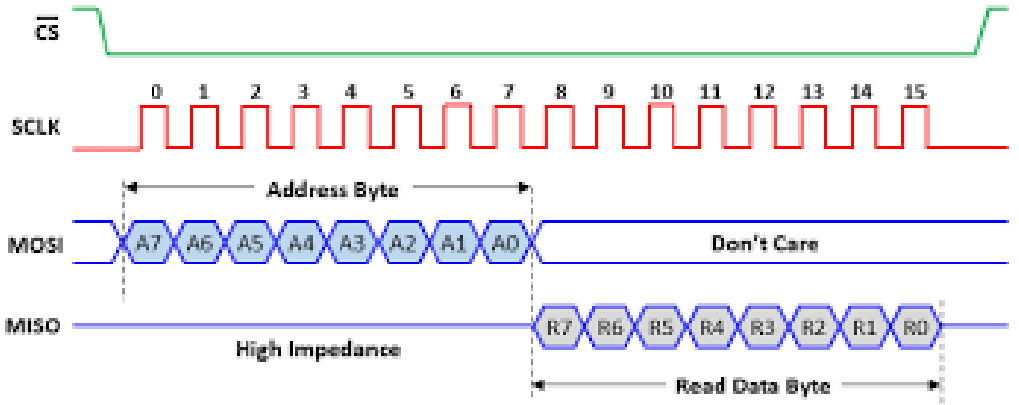


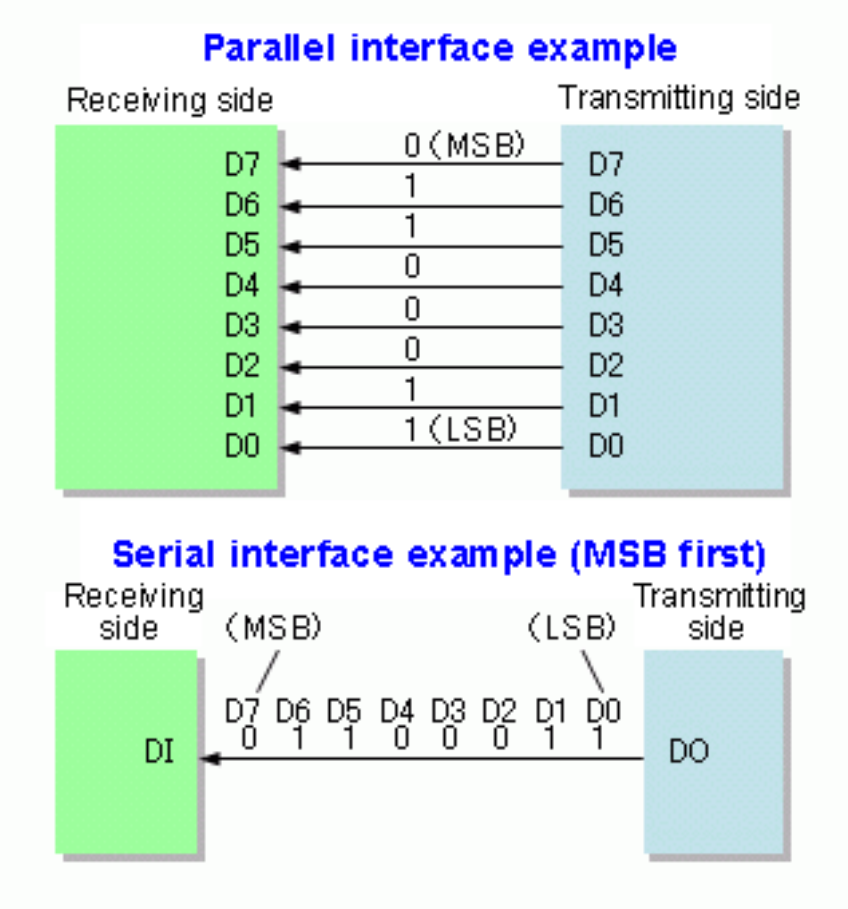
Clasificare 2. Interfață - Digitală

PATA, LPT, PORTA, BORTB, LCD

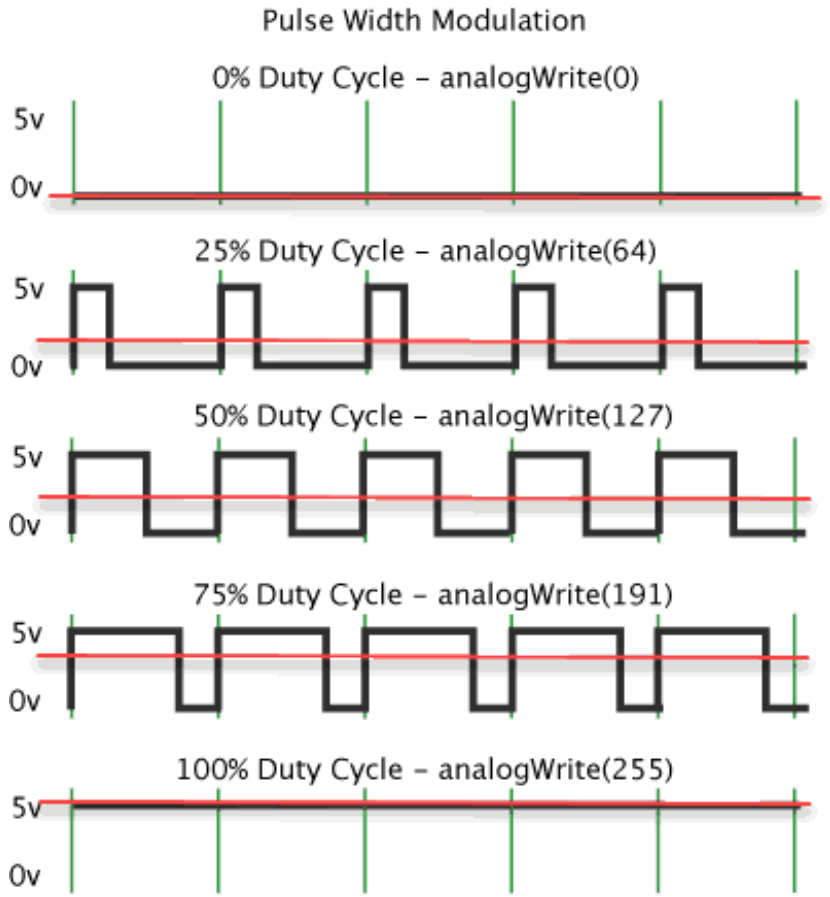


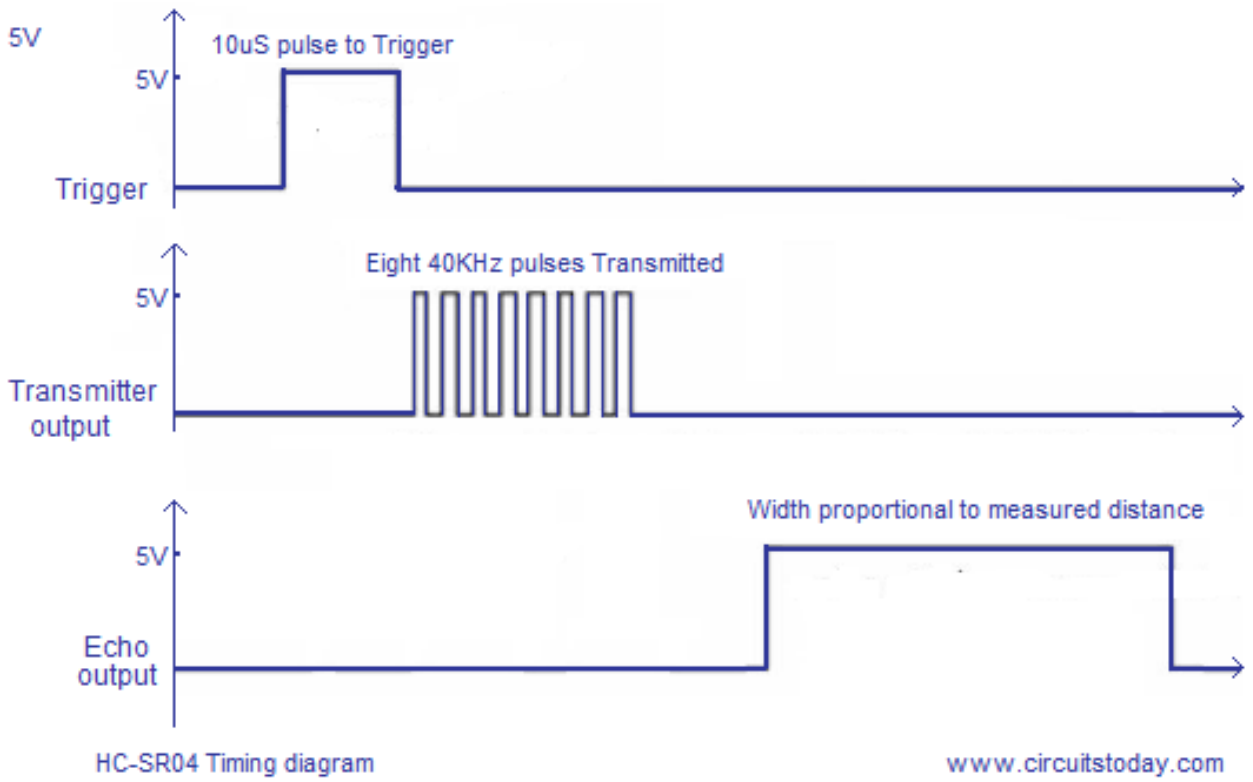
USB, SATA, I2C, SPI



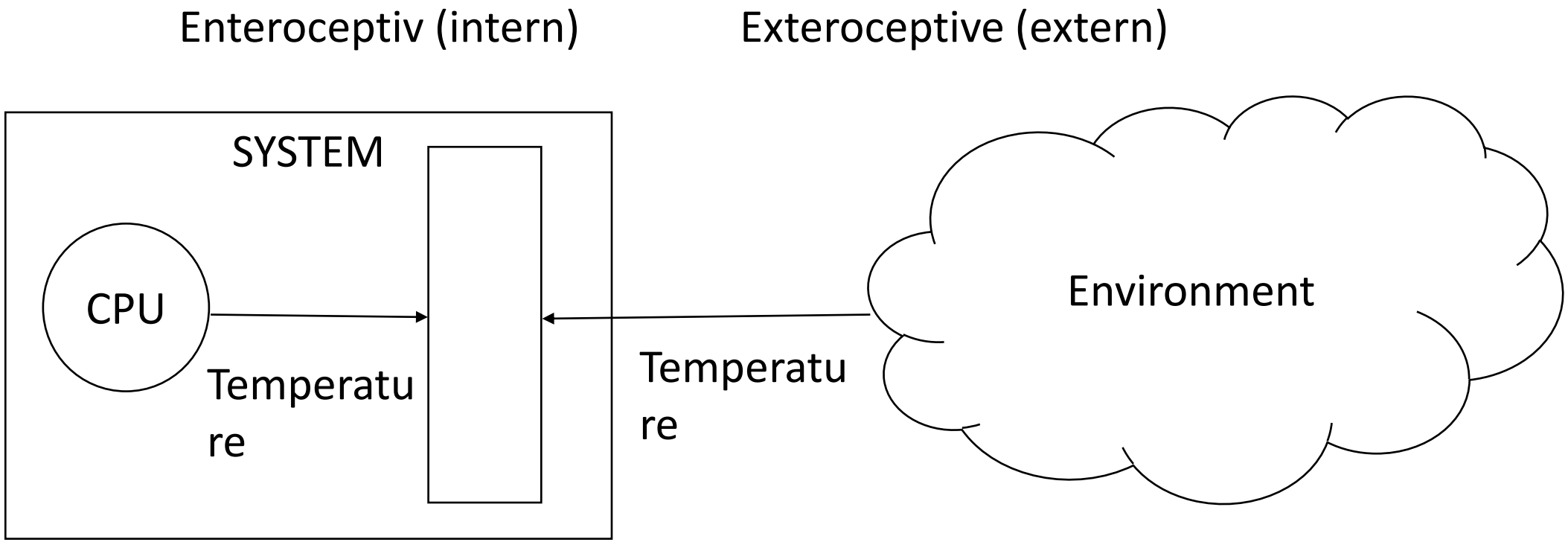


Clasificare 2. Interfață - Temporizata

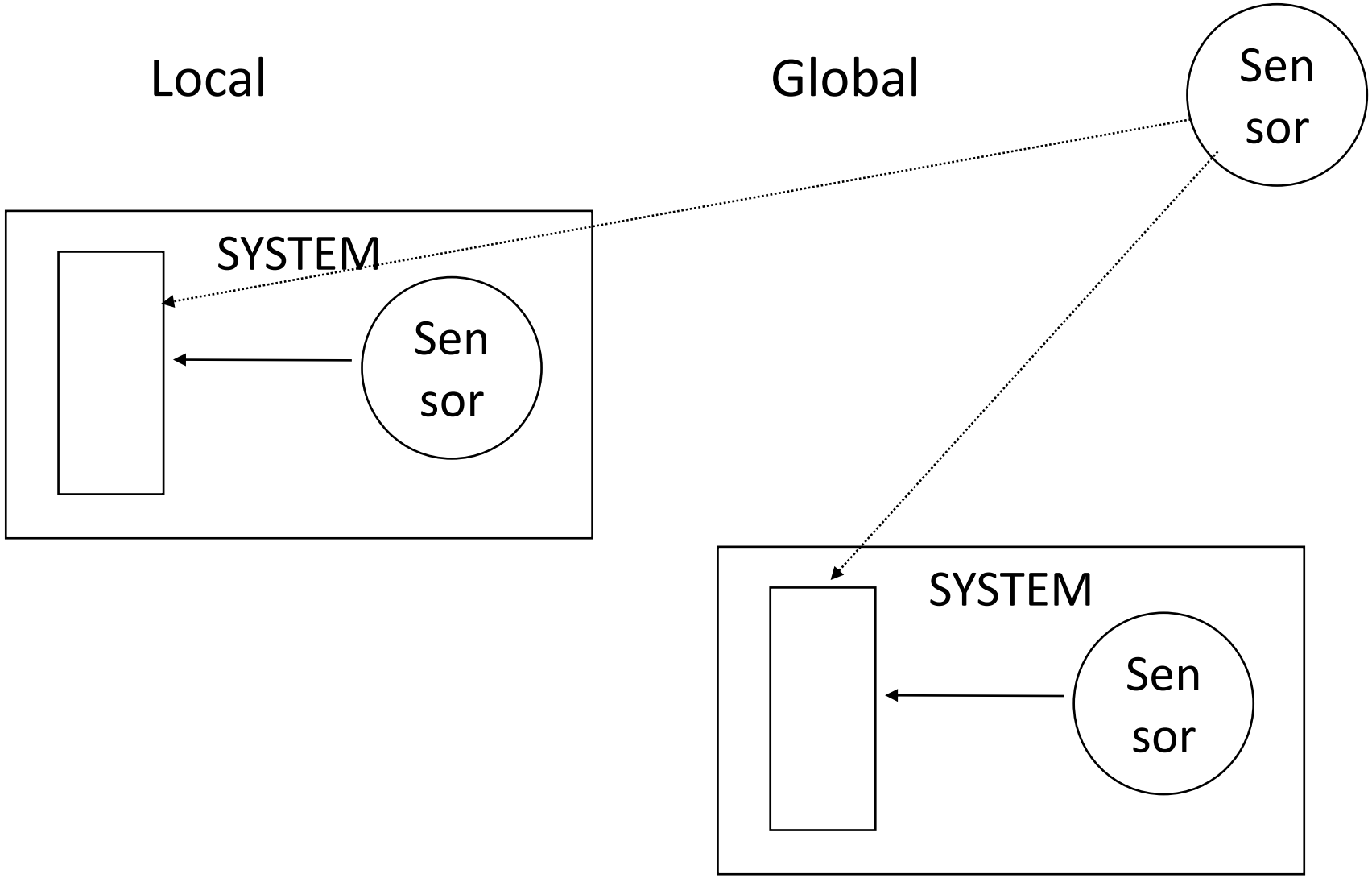




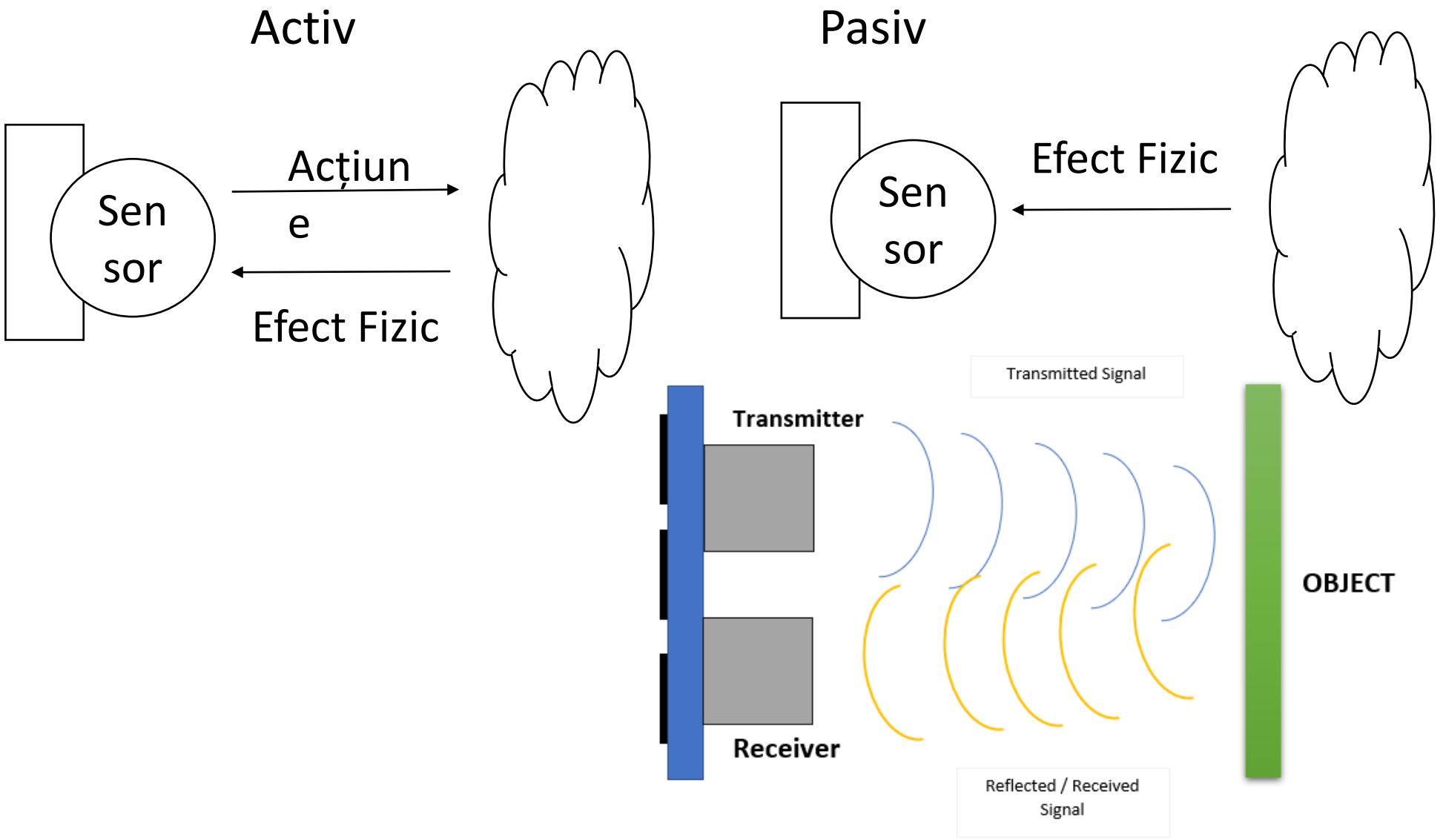
Clasificare 3. Sursa semnal



Clasificare 4.Poziționare



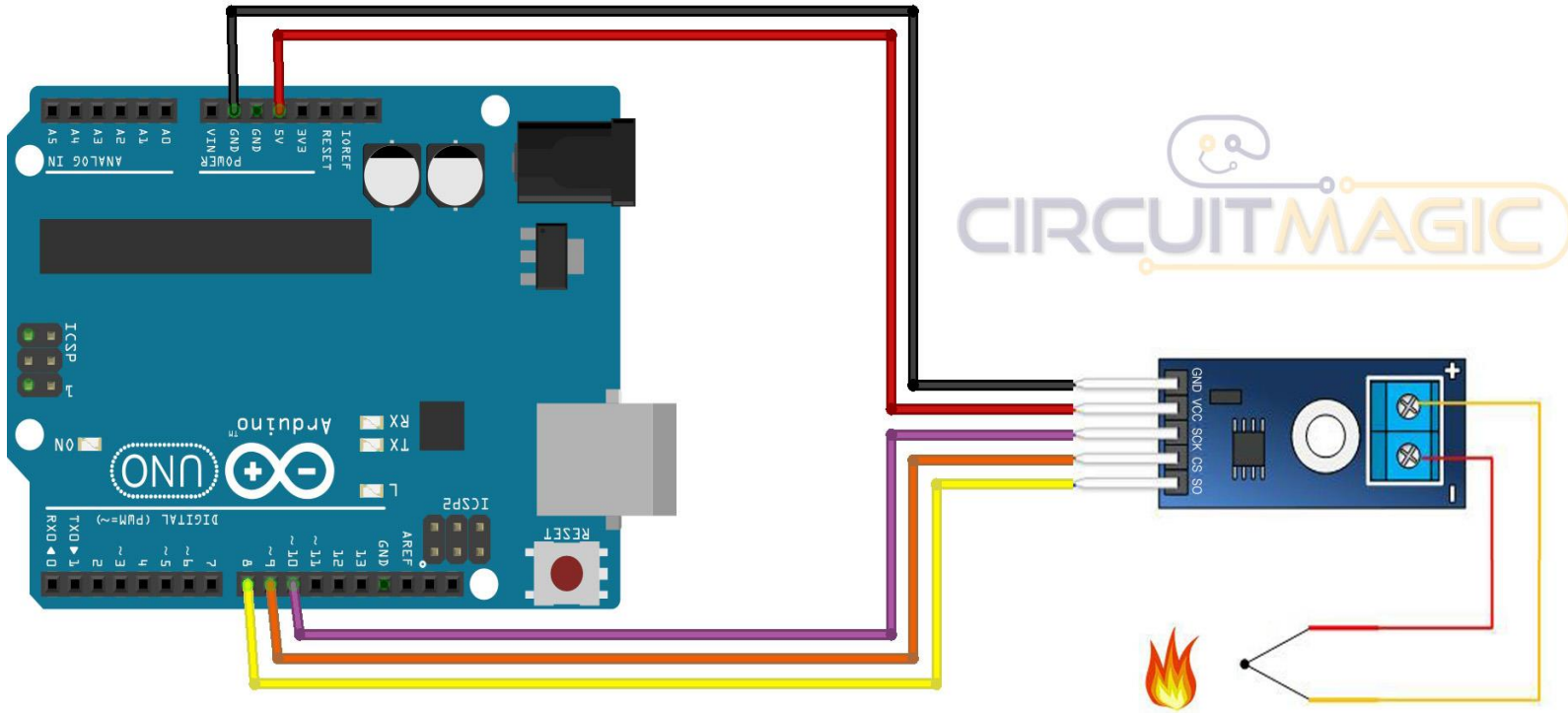
Clasificare 5. Acționare



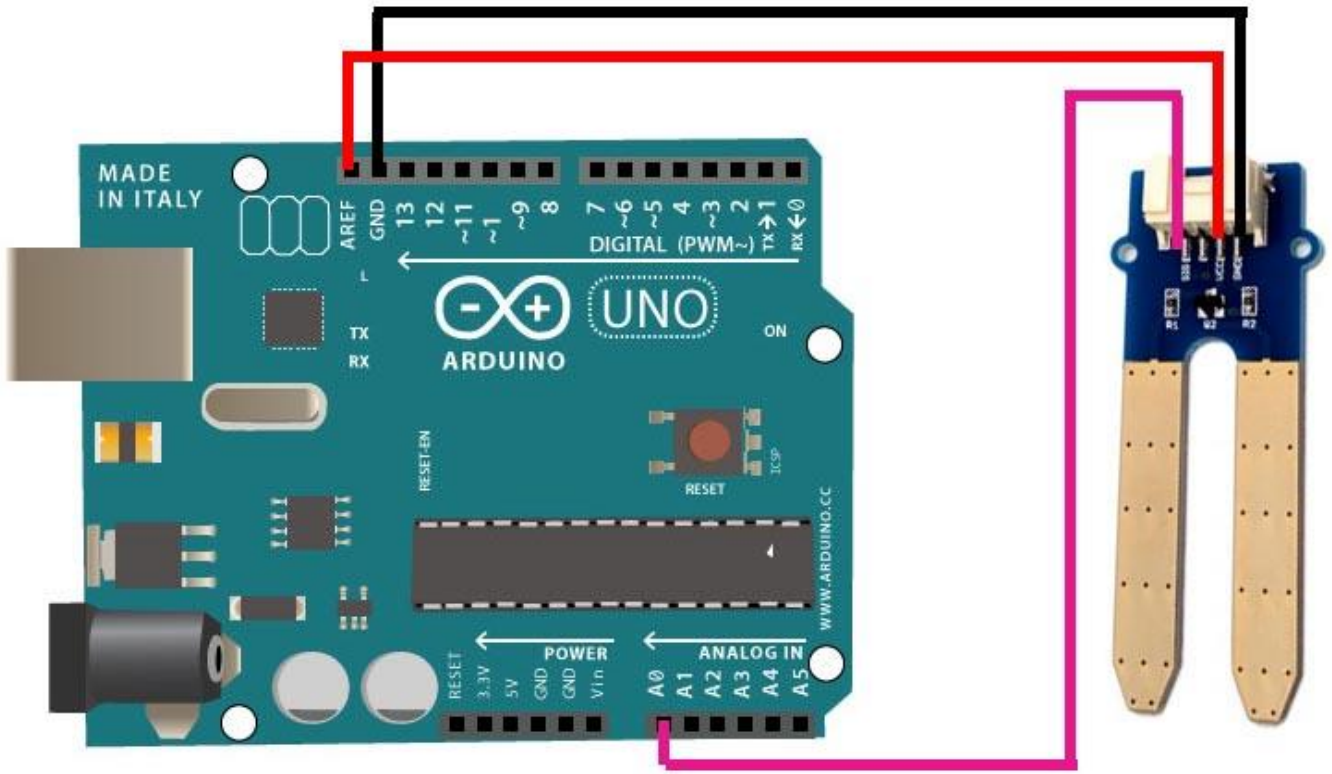
Clasificare - Acționare

	Local	Global
Internal	**Passive** battery sensor, chip-temperature sensor, shaft encoders, accelerometer, gyroscope, inclinometer, compass **Active** –	**Passive** – **Active** –
External	**Passive** on-board camera **Active** sonar sensor, infrared distance sensor, laser scanner	**Passive** overhead camera, satellite GPS **Active** sonar (or other) global positioning system

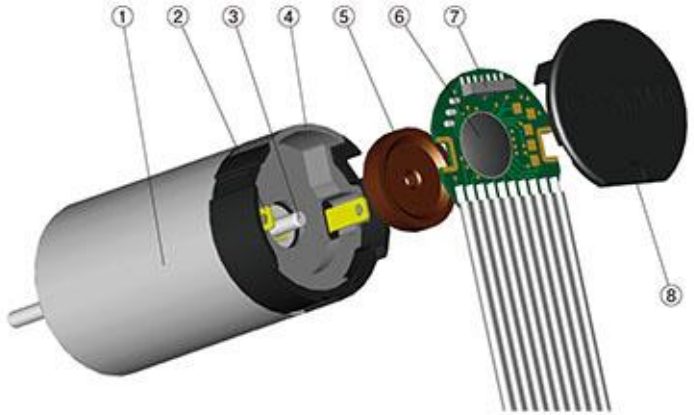
Achiziție - Temperatura

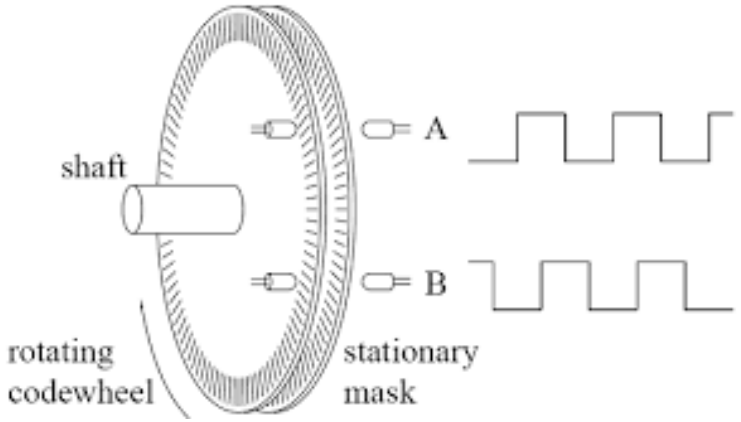


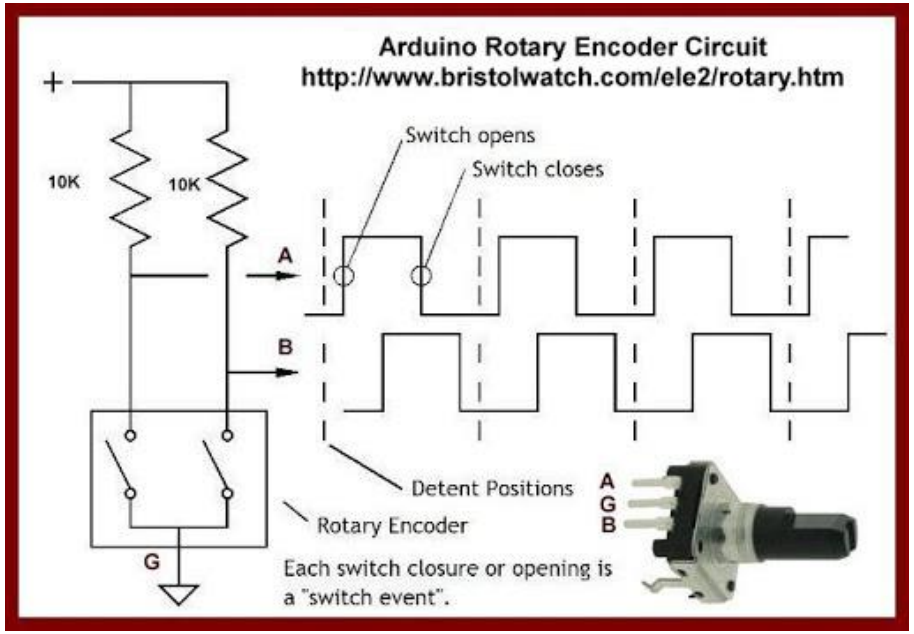
Achiziție - Umiditate



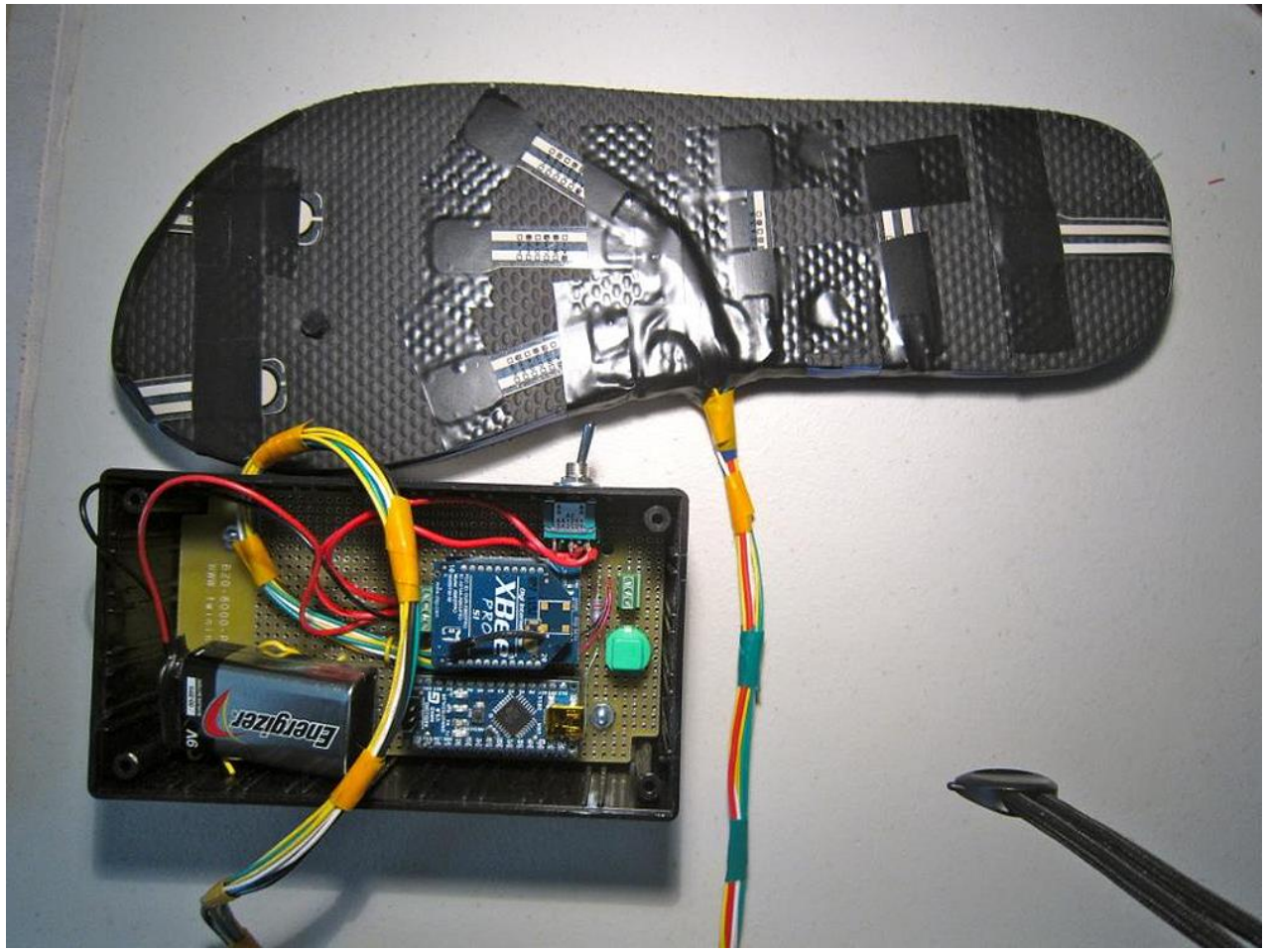
Achiziție - Rotații



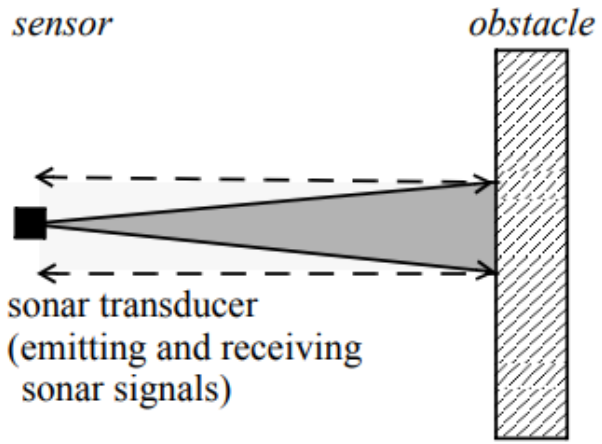


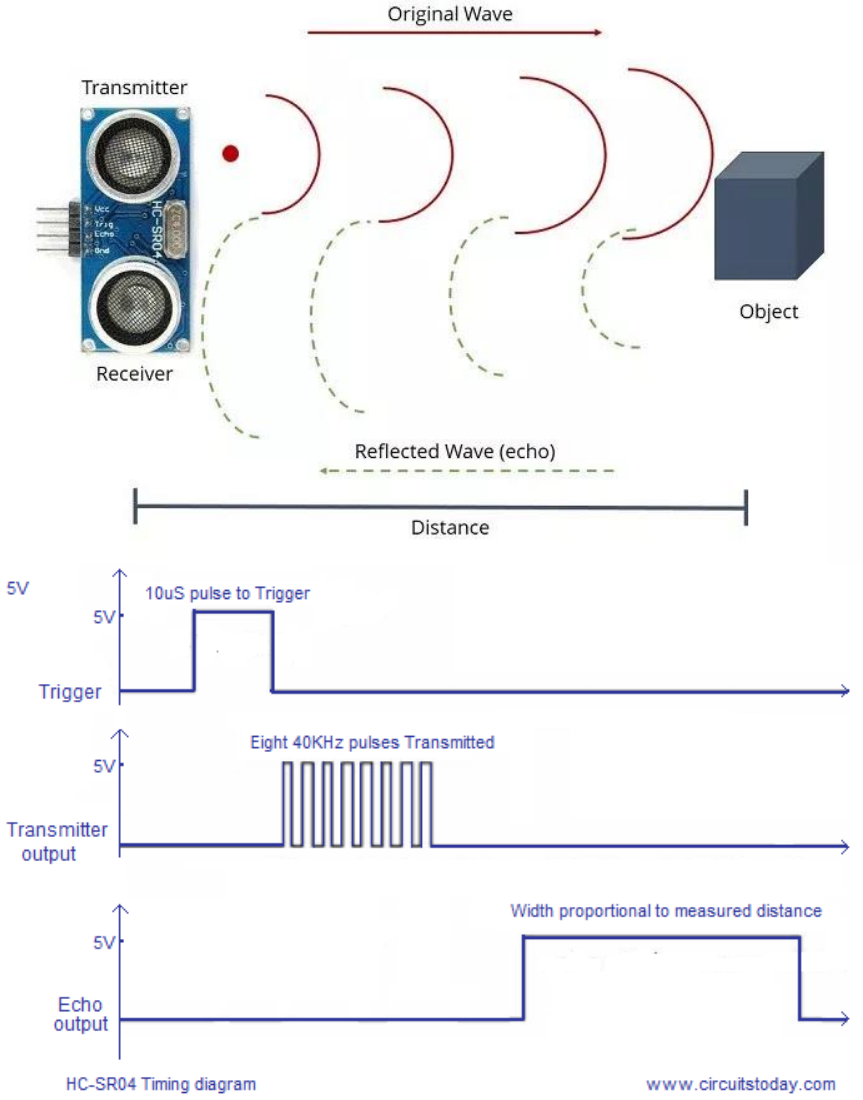


Achiziție - Presiune

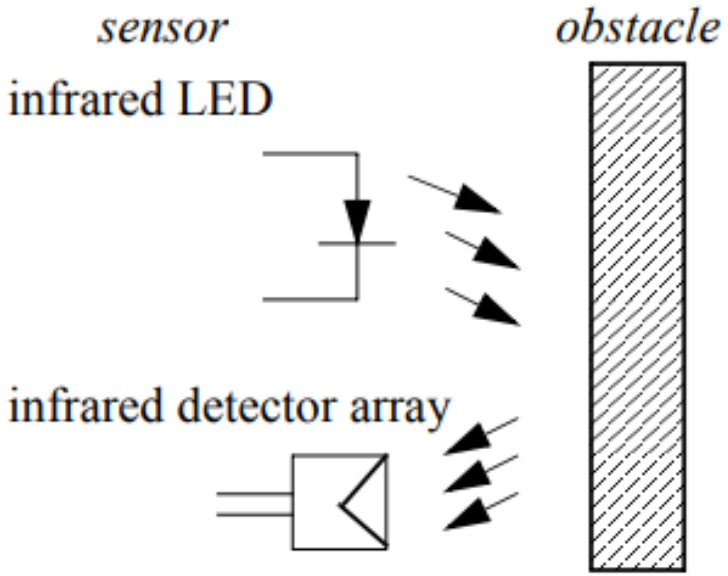


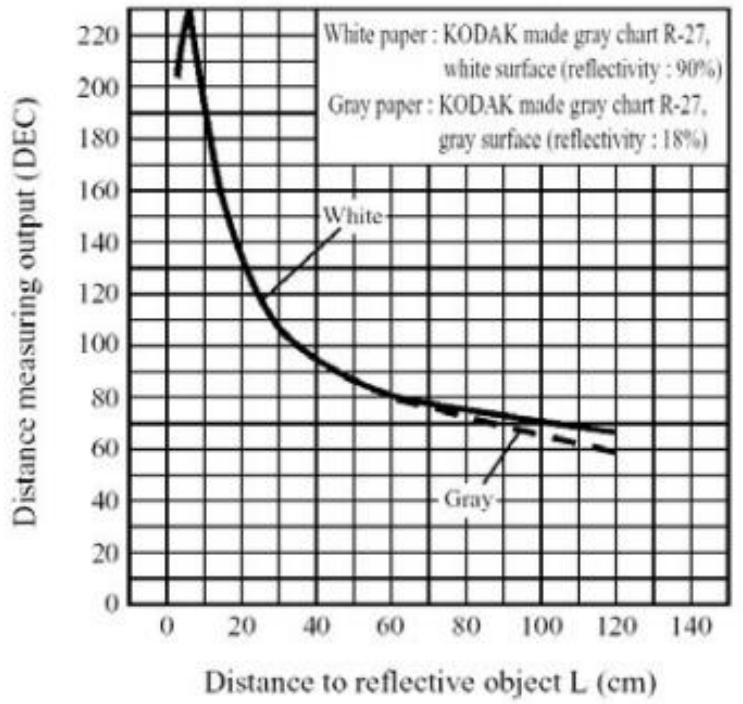
Achiziție - Ultrasonic Distance



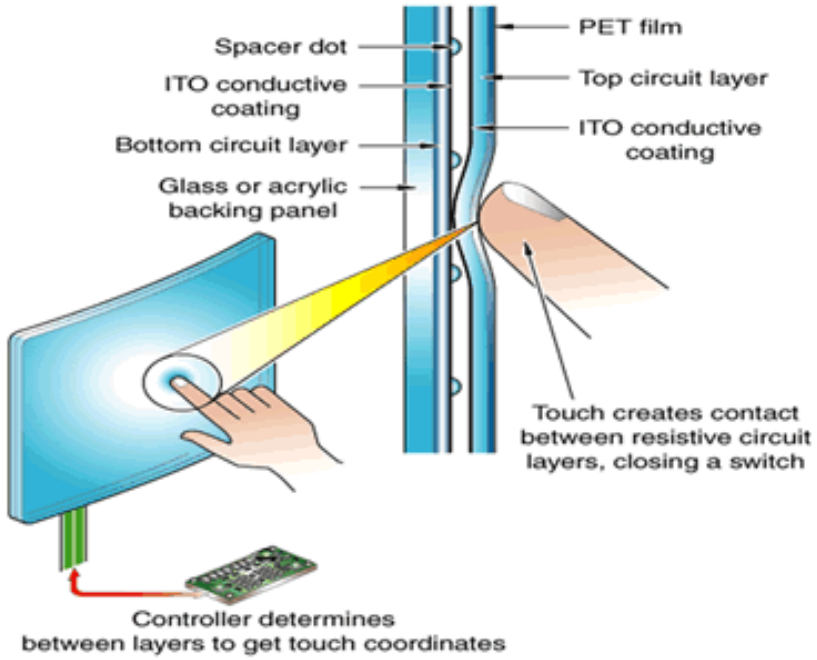


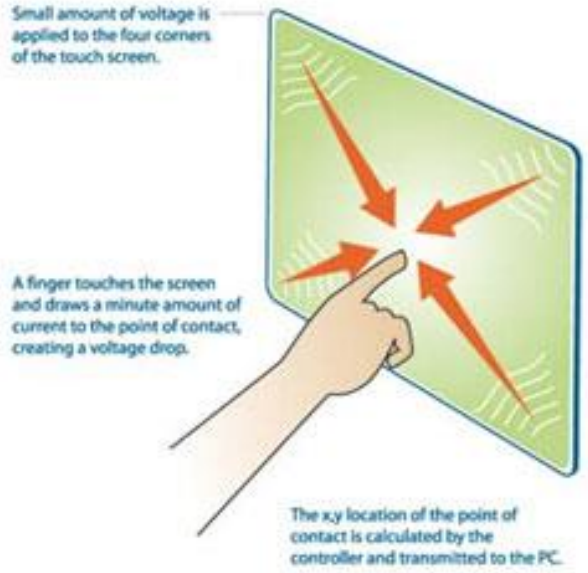
Achiziție - Laser distance

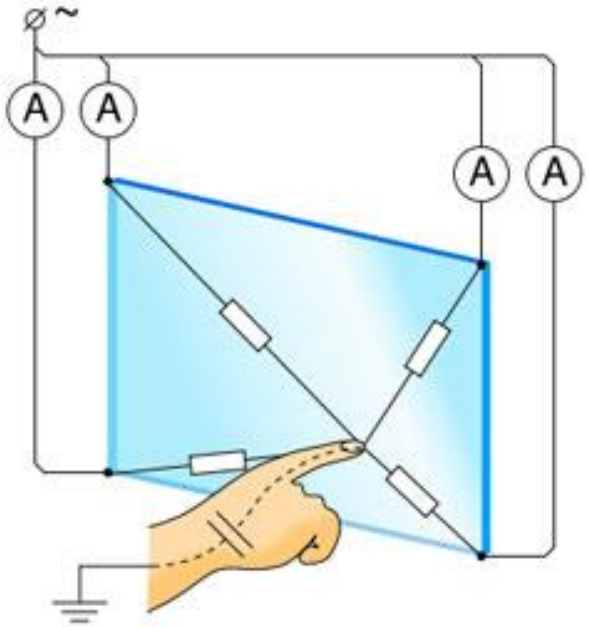




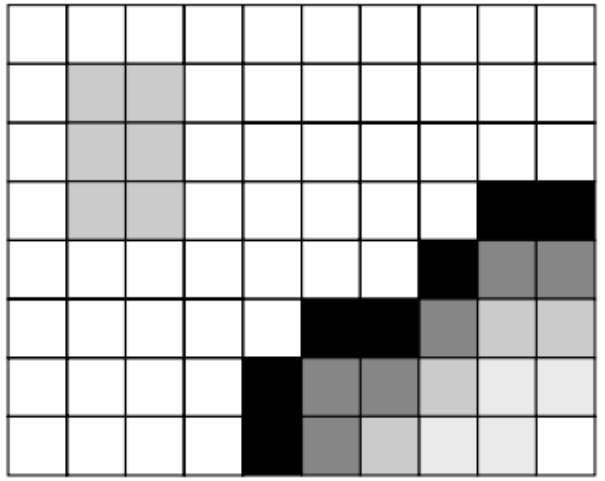
Rezistive touch sensor

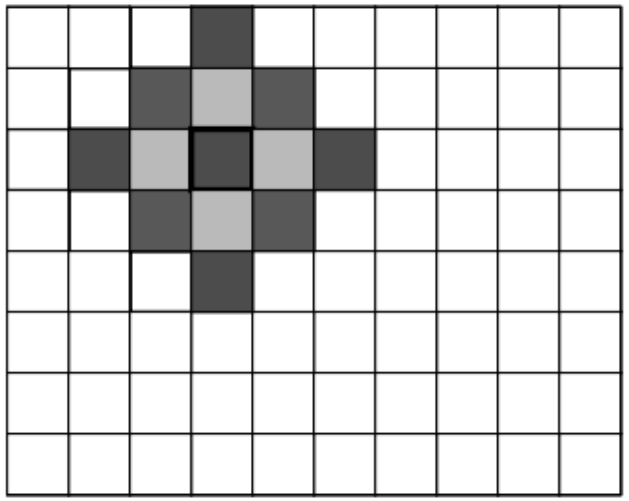




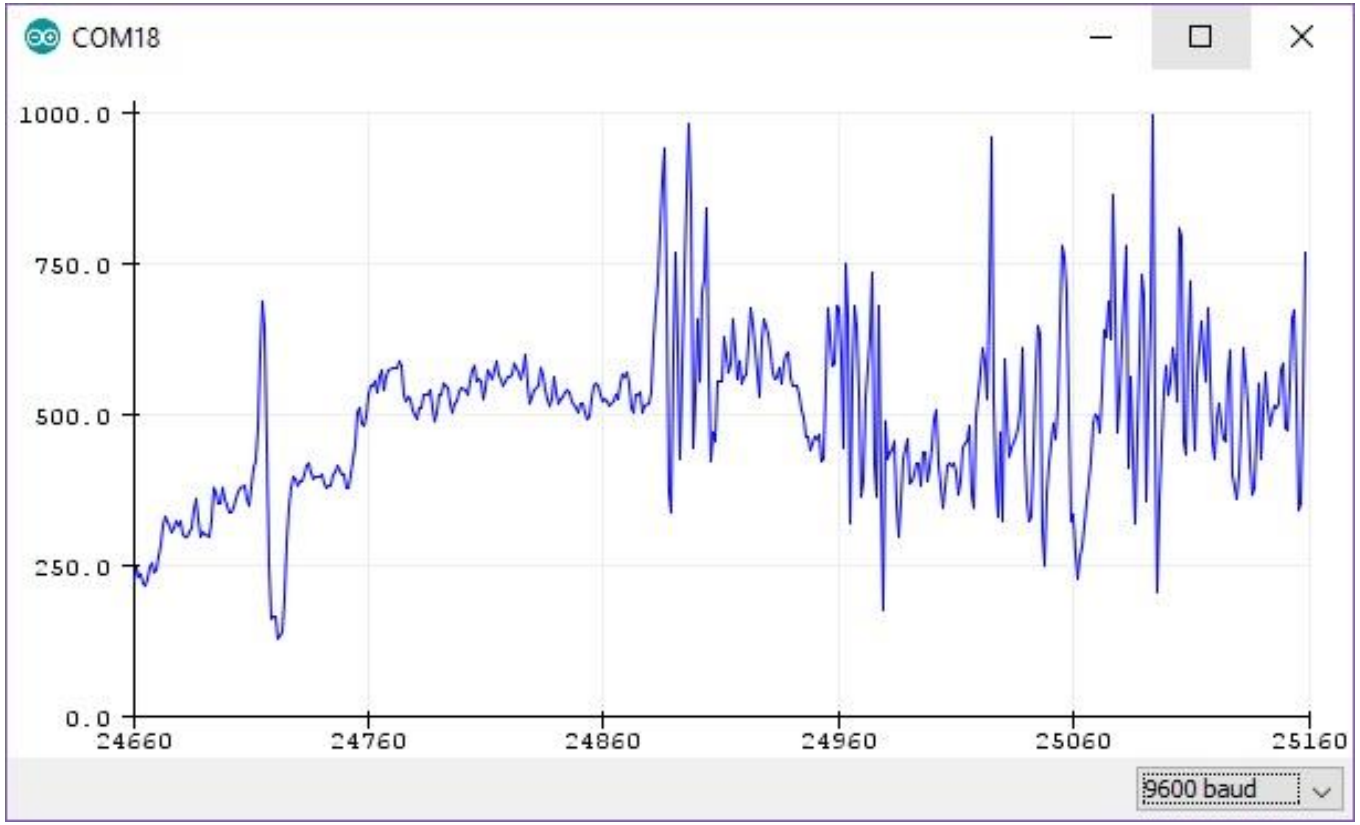


Detecție Mișcare





Achiziție Semnal



AnalogInOutSerial | Arduino 1.8.12 (Windows Store 1.8.33.0)

File Edit Sketch Tools Help

AnalogInOutSerial

```
void setup() {
  // initialize serial communications at 9600 bps:
  Serial.begin(9600);
}

void loop() {
  // read the analog in value:
  sensorValue = analogRead(analogInPin);
  // map it to the range of the analog out:
  outputValue = map(sensorValue, 0, 1023, 0, 255);
  // change the analog out value:
  analogWrite(analogOutPin, outputValue);

  // print the results to the Serial Monitor:
  Serial.print("sensor = ");
  Serial.print(sensorValue);
  Serial.print("\t output = ");
  Serial.println(outputValue);

  // wait 2 milliseconds before the next loop for the anal
  // converter to settle after the last reading:
  delay(2);
}
```

1 Arduino Uno on COM5