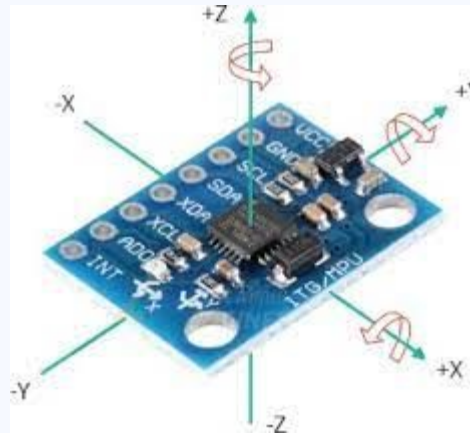


# SENSORS AND BAROMETRIC ALTIMETER



# Quick Recap!

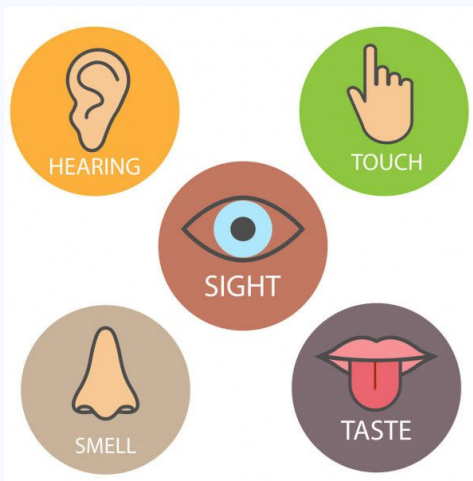
- What are signals?
  - Analog and digital signals
  - Where are they found
- Programming
  - Blinking LED
  - Light controlled LED



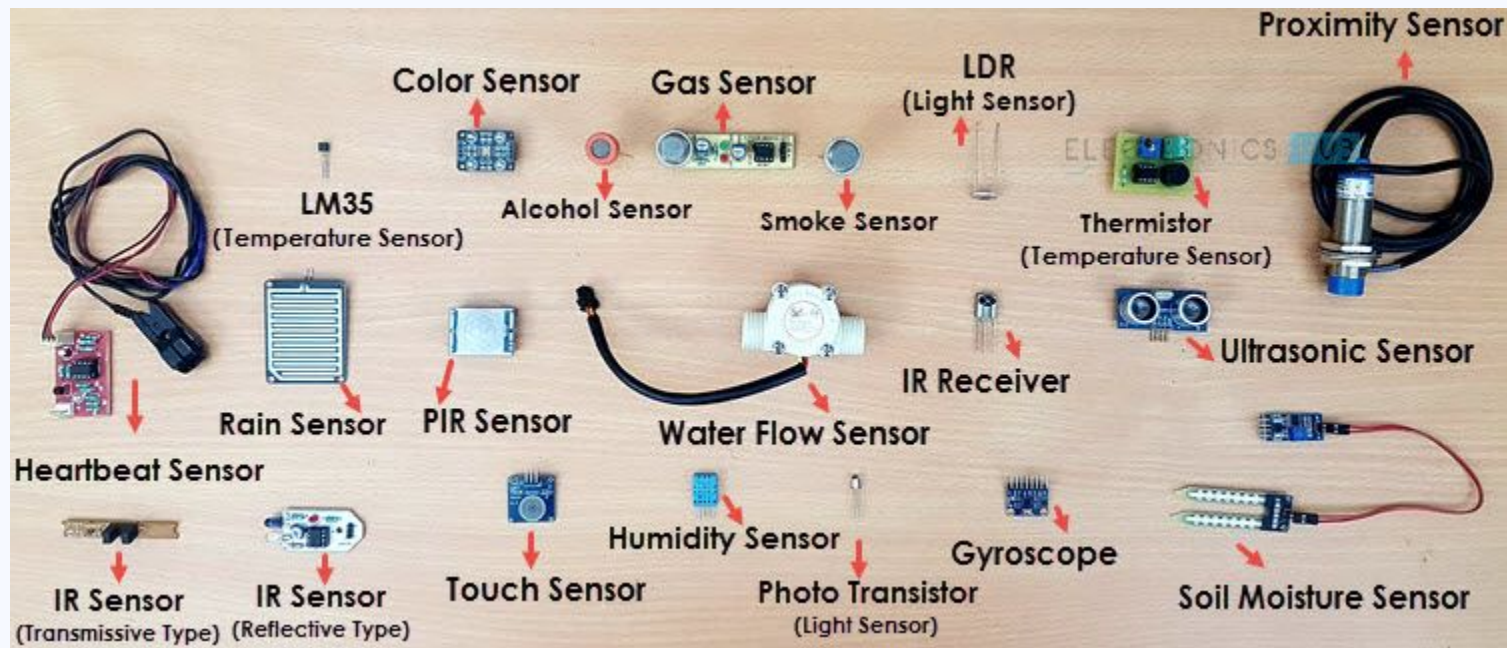


**IS THIS A  
SENSOR?**

## Sensors that you see everyday



# ELECTRONIC SENSORS

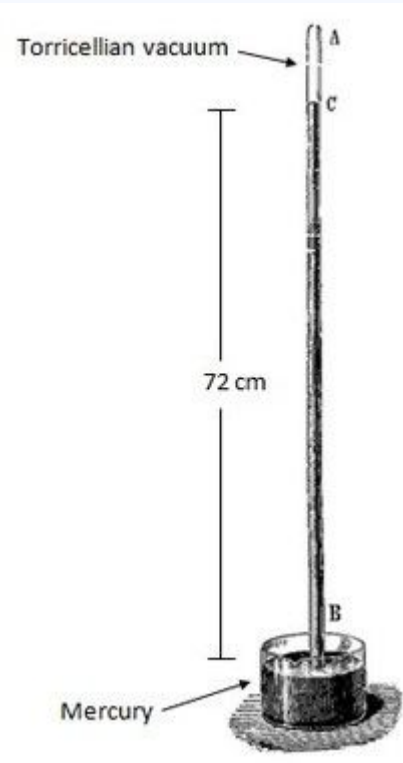




# **BAROMETRIC PRESSURE SENSOR**

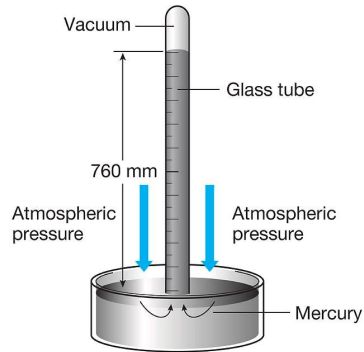
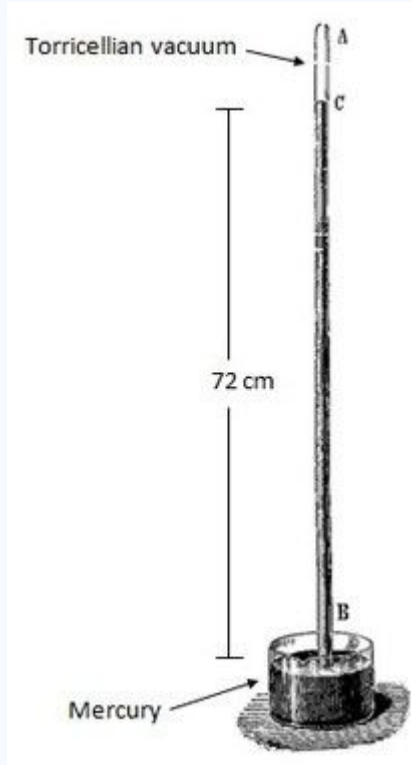
But what is a  
barometer?



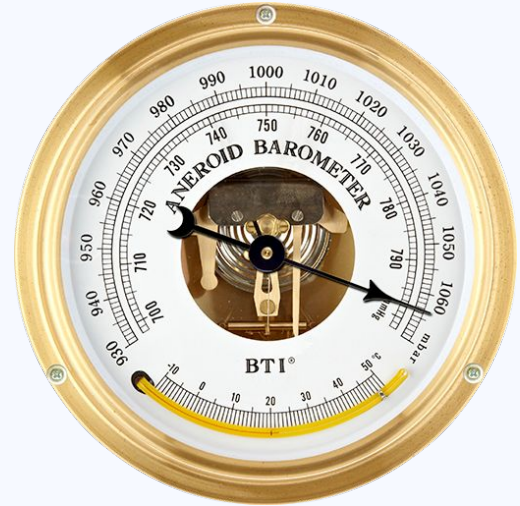
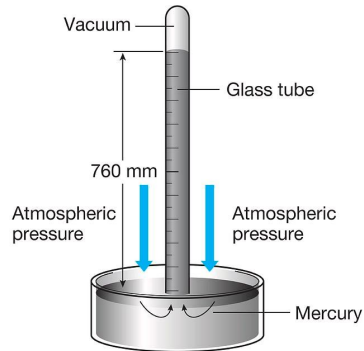
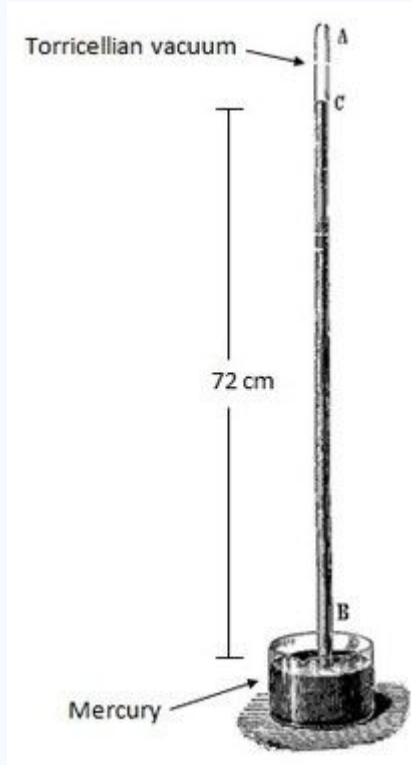


But what is a  
barometer?

# But what is a barometer?



# But what is a barometer?

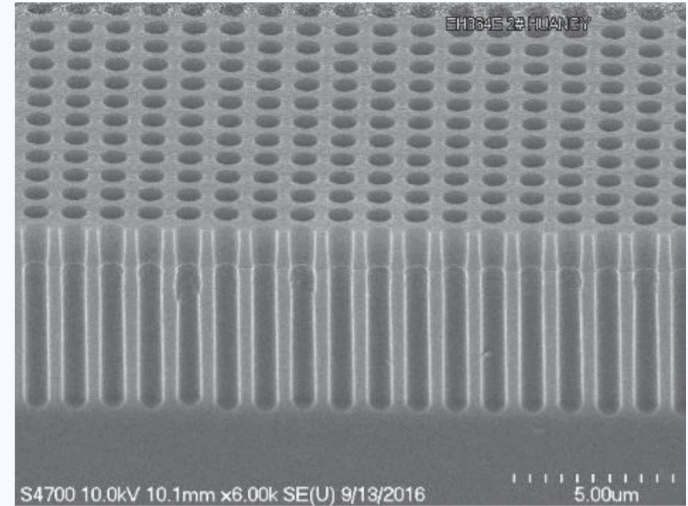


## ELECTRONIC BAROMETRIC PRESSURE SENSOR



# Barometric pressure sensor

- Microelectromechanical system(MEMS)
- Has an “Advanced porous silicon membrane” (APSM)
- Is a “Piezoresistive sensor”
- Stress can be measured by monitoring the resistance change of the sensor





OK...but how does the sensor talk???...🤔🤔

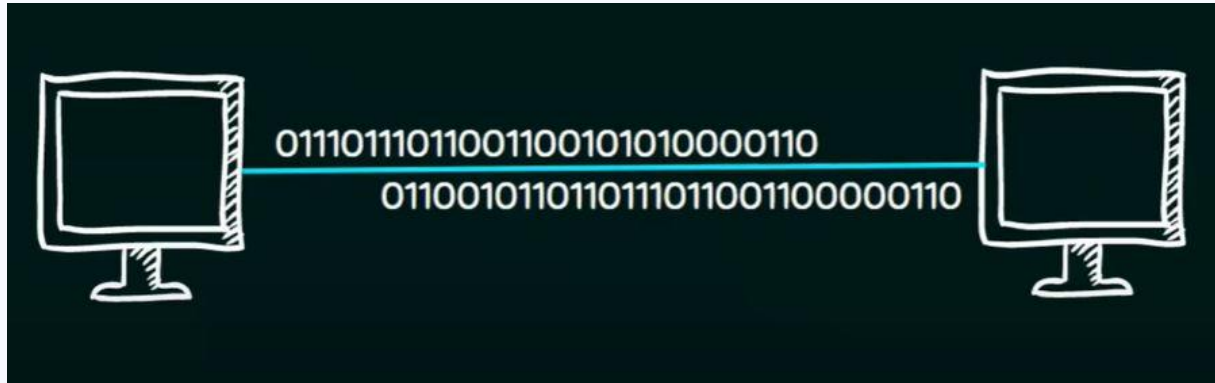
OK...but how does the sensor talk???...🤔🤔

## **COMMUNICATION PROTOCOLS!!**

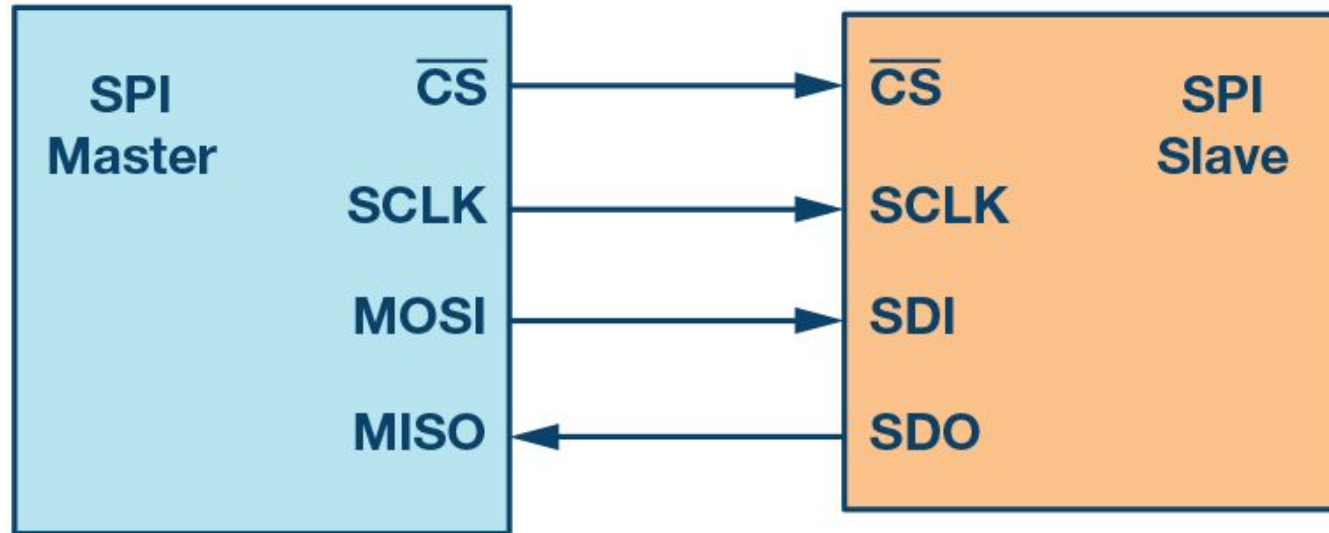


OK...but how does the sensor talk???...🤔🤔

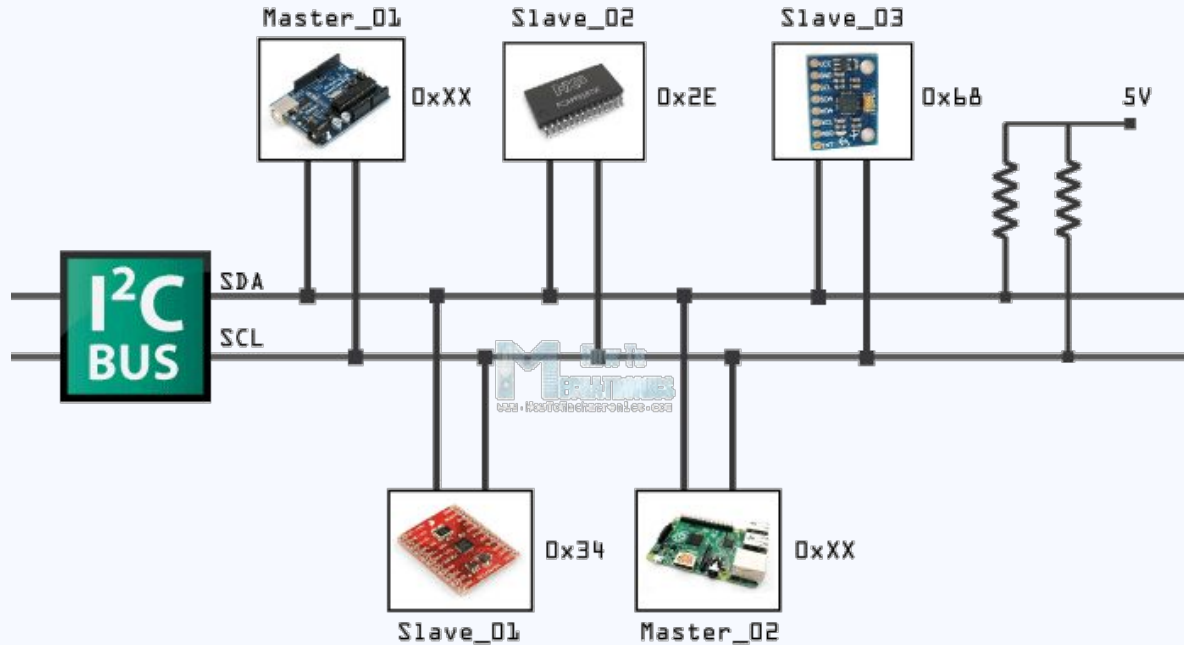
## COMMUNICATION PROTOCOLS!!



# Serial Peripheral Interface



# I2C(Inter integrated circuit)

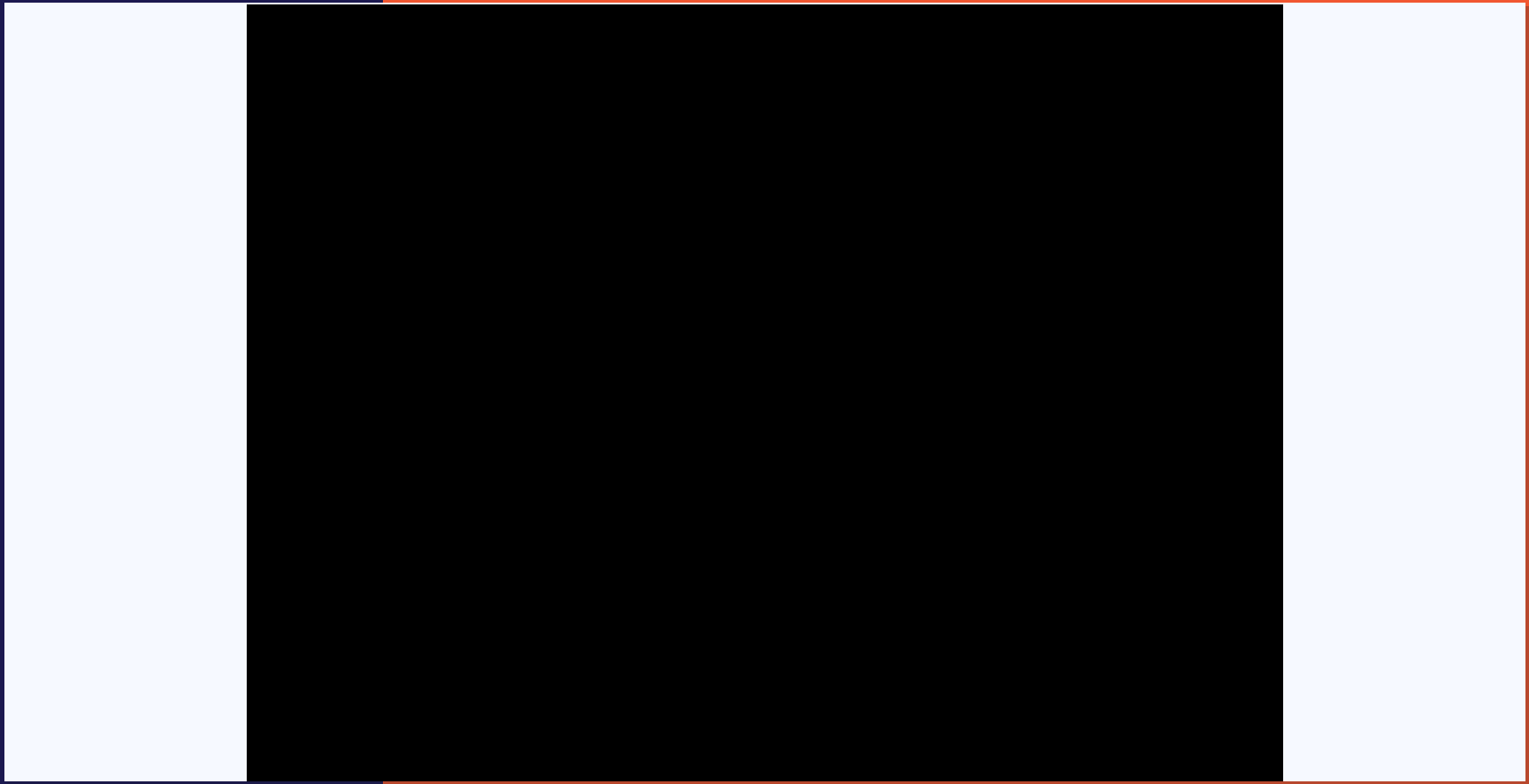


- BMP280 sensor can give pressure and temperature
- Can work on both SPI and I<sup>2</sup>C.

- BMP280 sensor can give pressure and temperature
- Can work on both SPI and I<sup>2</sup>C.

**LET'S LOOK AT  
SOME CODE!!!!**





**THANK YOU!!!!!!**

## REFERENCE:

<https://create.arduino.cc/projecthub/SurtrTech/bmp280-measure-temperature-pressure-and-altitude-e1c857>