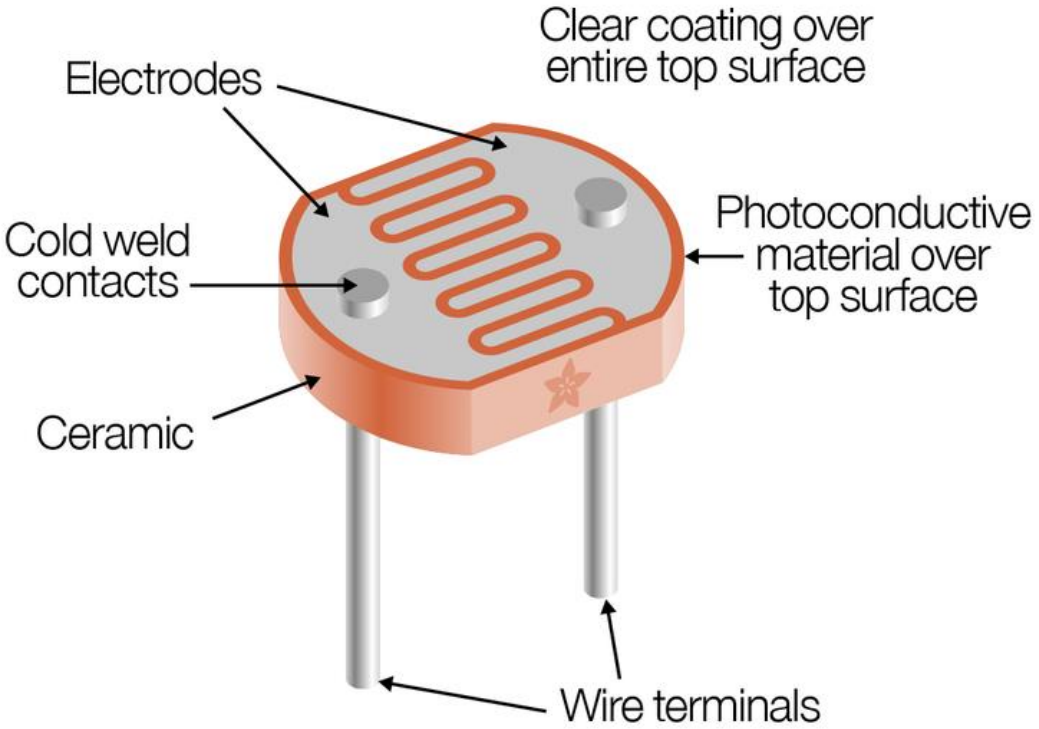
QUIZ TIME !

BASIC SENSORS

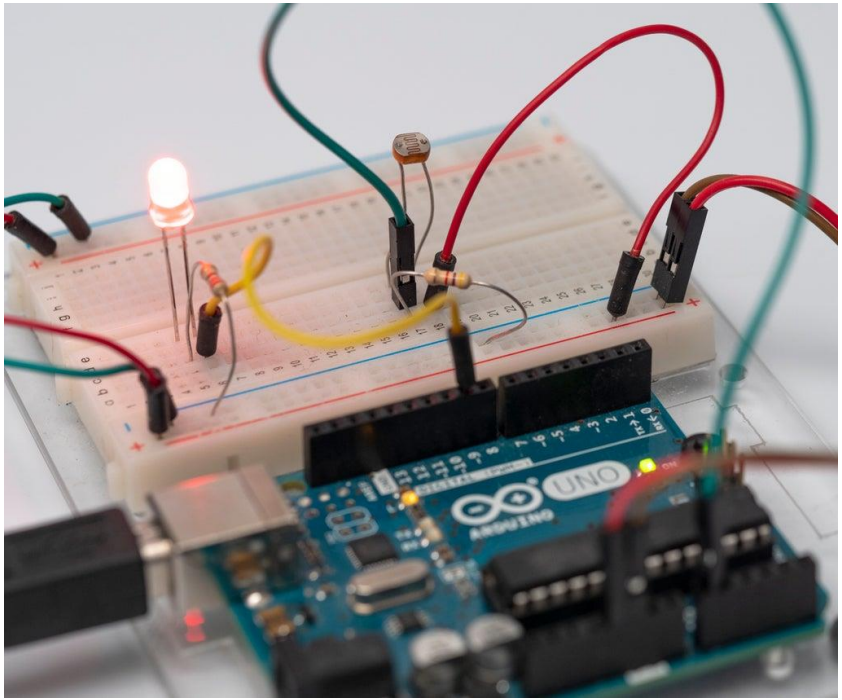
LIGHT SENSOR

- ✓ COMPONENTS



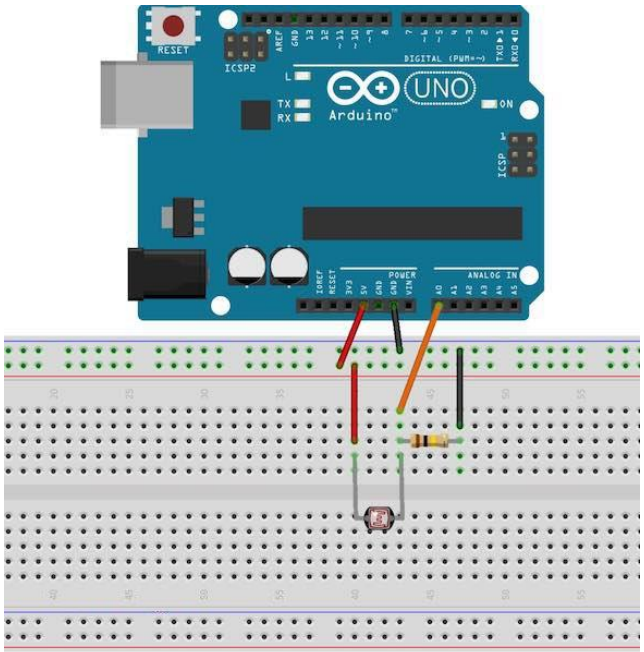
WORKING OF LIGHT SENSOR

- ✓ The sensor that can be used to detect light is an LDR sensor . The LDR gives out an analog voltage when connected to VCC (5V), which varies in magnitude in direct proportion to the input light intensity on it. That is, the greater the intensity of light, the greater the corresponding voltage from the LDR will be.



INTERFACE WITH ARDUINO

```
void setup( )
{
      pinMode(A0,0);
     Serial.begin(9600);
}
void loop ( )
{
      Serial.println(analogRead(A0));
      delay(1000);
}
```



APPLICATIONS

- AUTOMATION OF STREET LIGHTS

- AUTOMATIC BRIGHTNESS ADJUSTMENT IN YOUR MOBILE

TEMPERATURE SENSOR

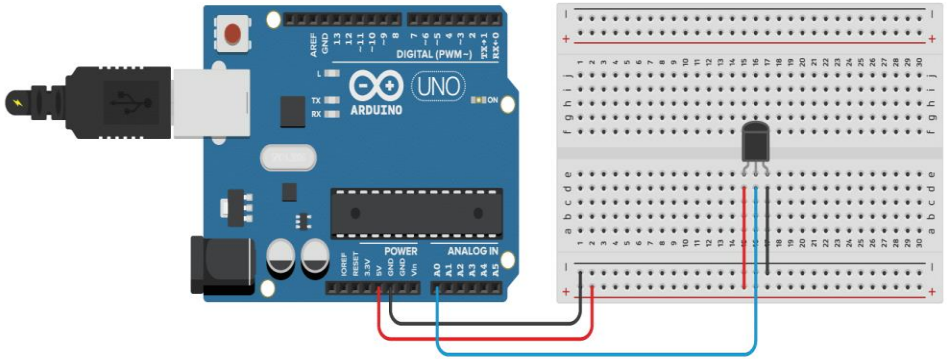
- ✓ COMPONENTS
- ✓ PINS

WORKING OF TEMPERATURE SENSOR

- ✓ LM35 sensor uses the basic principle of a diode ,where as the temperature increases, the voltage across a diode increases at a known rate.By precisely amplifying the voltage change, it is easy to generate an analog signal that is directly proportional to temperature.

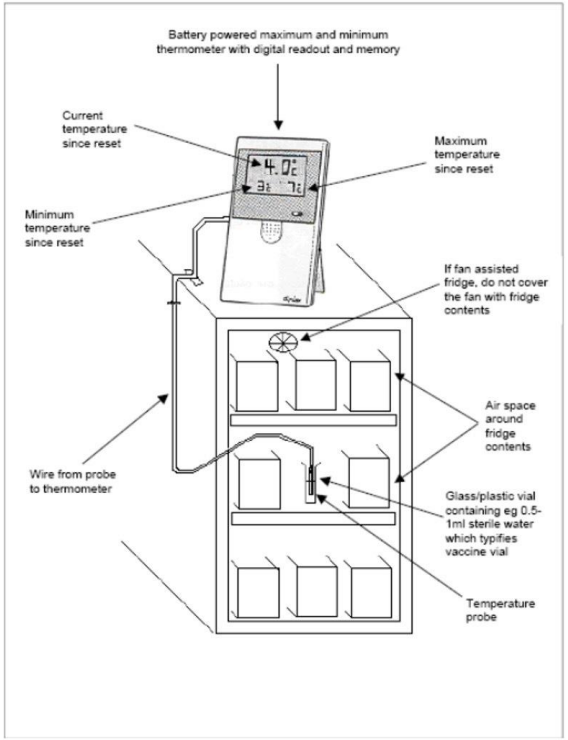
INTERFACE WITH ARDUINO

```
int sensePin = A0;
int sensorInput;
void setup()
{

Serial.begin(9600);
}

void loop()
{

    sensorInput = analogRead(A0);
                  temp = (double)sensorInput / 1024;
                  temp = temp * 5;
                  temp = temp - 0.5;
                  temp = temp * 100;

                  delay(200);
                  Serial.print("Current Temperature: ");
                  Serial.println(temp);

}
```



APPLICATIONS

- Our refrigerators and freezers to help regulate and maintain cold temperatures .
- Stoves and ovens to ensure that they heat to the required levels for cooking, air confectioners/heaters.

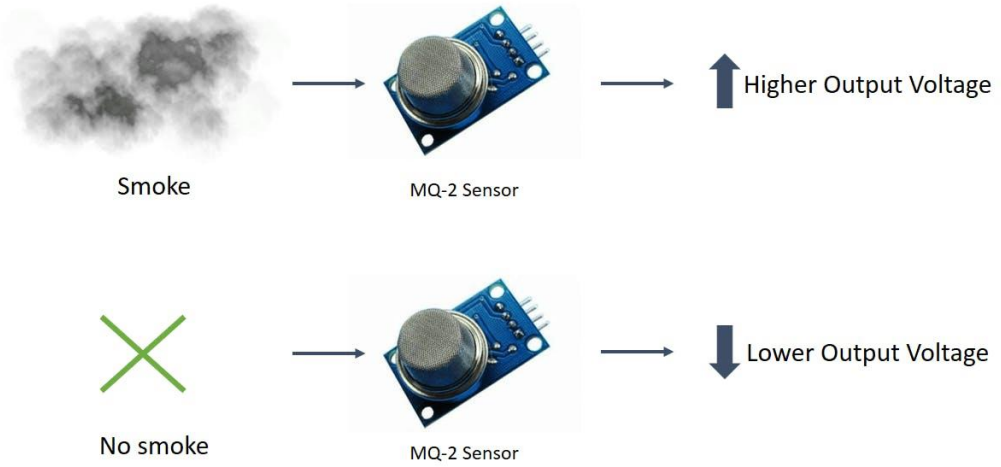


SMOKE OR GAS SENSOR

- ✓ COMPONENTS
- ✓ PINS

WORKING OF SMOKE OR GAS SENSOR

- The greater the gas concentration, the higher is the output voltage while lesser gas results in low output voltage . You can use it to adjust the concentration of gas at which the sensor detects it. The sensor is sensitive to multiple gasses but cannot tell which it is !!



APPLICATIONS

- Smoke Alarms

YOUTUBE LINKS

- https://youtu.be/l2XaOqD3Qtw
- https://youtu.be/JmUt9O4c2-c

- **ARDUINO COURSE**
- **https://mega.nz/file/pKxVTCoJ#gIzX9Lck25AmUblIGXADdZBt1u0EHC-qYEKpH2ME88s**

QUIZ TIME !