## Read a Sensor data Temperature Sensor:

### Task:

- Connect an DHT11 /TMP36 sensor to Arduino

- **Questions:**
- What are the pins Sensor?

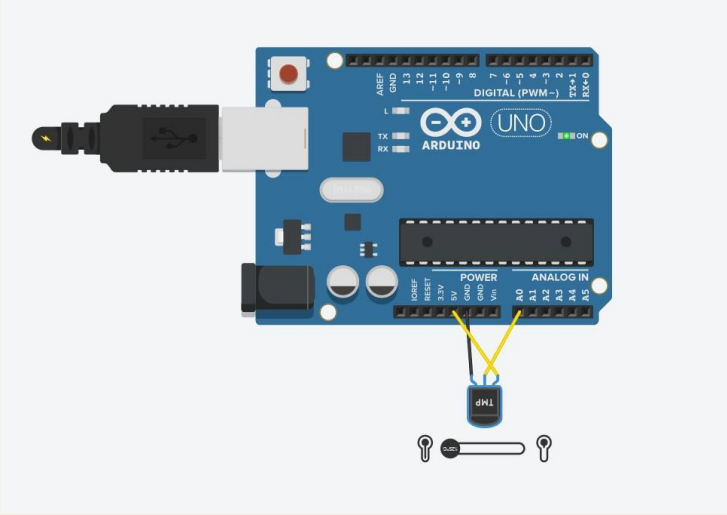
- Understand the working on an sensor

- Understand the meaning of
  Serial.begin(), map()



### Components:

- Arduino
- Temperature Sensor




```
int sensor_data = 0;

int temp = 0;

void setup()

{

  pinMode(A0, INPUT);

  Serial.begin(9600);

}
```

```
void loop()
{
  sensor_data = analogRead(A0);
  Serial.println(sensor_data);
  temp = map(sensor_data, 0, 350, -10, 70);
  Serial.print("Temp is ");
  Serial.println(temp);
  delay(10); // Delay a little bit to improve simulation performance
}
```

**Now Assume you have a cold storagecenter where temp has to be maintained 15deg Give an alarm if temp is above 15deg**

- Connect an Temperature sensor and buzzer to Arduino
- Turn on buzzer if Temperature is more than 15

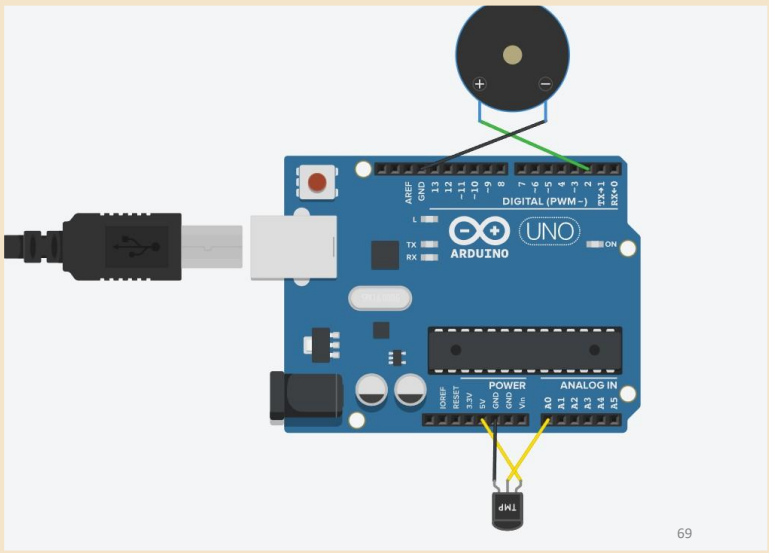
**Questions:**

**Control Funtions**

**Now Assume you have a cold storagecenter where temp has to be maintained 15deg Give an alarm if temp is above 15deg**

## Components:

Arduino
Temperature Sensor
BUZZER

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**Now Assume you have a cold storagecenter where temp has to be maintained 15deg Give an alarm if temp is above 15deg**

```
int sensor_data = 0;
int temp = 0;
void setup()
{
  pinMode(A0, INPUT);
  pinMode(2,OUTPUT);
  Serial.begin(9600);
}
void loop()
{
  sensor_data = analogRead(A0);
  Serial.println(sensor_data);
  temp = map(sensor_data, 0, 350, -10, 70);
  Serial.print("Temp is ");
  Serial.println(temp);
  if(temp>15)
  {
    digitalWrite(2,HIGH);
  }
  else
    digitalWrite(2,LOW);
  delay(10); // Delay a little bit to improve simulation performance
}
```

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  Serial.begin(9600);
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