

Read a Sensor data Ultrasonic Sensor:

Task:

- Connect an Ultrasonic sensor to Arduino
- Calculate the distance and time

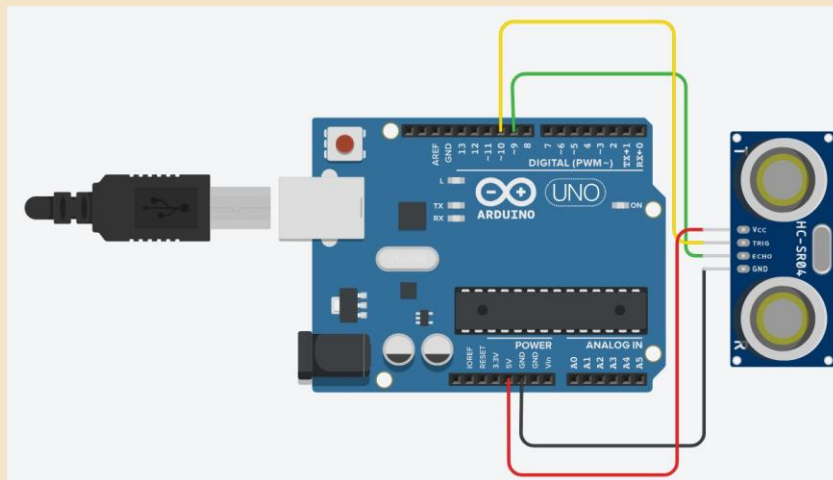
Questions:

- What are the pins of an Ultrasonic Sensor?
- Understand the working on an Ultrasonic sensor
- Understand the meaning of
`Serial.begin()`, `delayMicroseconds()`, `Serial.println()`

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Components:

- Arduino
- Ultrasonic Sensor



```
int trigPin = 10;
```

```
int echoPin = 9;
```

```
long time;
```

```
float distance;
```

```
void setup()
```

```
{
```

```
pinMode(trigPin, OUTPUT);  
// SETTING OUTPUT PIN  
pinMode(echoPin, INPUT);  
// SETTING INPUT PIN  
Serial.begin(9600);  
// INITIALISING THE COMMUNICATION  
}  
void loop()  
{  
  digitalWrite(trigPin,LOW);  
  delayMicroseconds(2);  
  // transmitting sound for 10 microseconds  
  digitalWrite(trigPin, HIGH);  
  delayMicroseconds(50);  
  digitalWrite(10, LOW);  
  // calculating distance  
  time=pulseIn(echoPin , HIGH);  
  Serial.print("time: ");  
  Serial.println(time);  
  distance = time * 0.0343/2;  
  // Printing out the final output => distance  
  Serial.print("Distance:");  
  Serial.println(distance);  
}
```