PRACTICAL REPORT

For IoT Practical

2022

DARSHAN RAMJIYANI (DSP)

DOCS, KSKV Kachchh University

❖ 6.04 - Getting Input from Sensors

Measure the distance to something, such as a wall or someone walking toward the Arduino.

Arduino Code:

```
const int pingPin = 5;
const int ledPin = 13;

void setup()
{
    Serial.begin(9600);
    pinMode(ledPin, OUTPUT);
}

void loop()
{
    int cm = ping(pingPin) ;

    Serial.println(cm);

    digitalWrite(ledPin, HIGH);

    delay(cm * 10 );

    digitalWrite(ledPin, LOW);

    delay( cm * 10);
}

int ping(int pingPin)
{
    long duration, cm;

    pinMode(pingPin, OUTPUT);
    digitalWrite(pingPin, LOW);

    delayMicroseconds(2);
    digitalWrite(pingPin, HIGH);

    delayMicroseconds(5);
    digitalWrite(pingPin, LOW);

    pinMode(pingPin, INPUT);
```

```
    duration = pulseIn(pingPin, HIGH);

    cm = microsecondsToCentimeters(duration);
}

long microsecondsToCentimeters(long microseconds)
{
    return microseconds / 29 / 2;
}
```

Circuit Diagram / Output: