

INTERNET OF THINGS

Assignment 2

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Develop an "Automatic garage door opening system". Use an Ultrasonic sensor to detect if there is a vehicle in front of the garage. if any vehicle is detected open the garage door (rotate the servo motor) for some time and close it.

Code:

```
#include <Servo.h>

int distance = 0;

Servo servo_6;

long readUltrasonicDistance(int trigger pin, int echoPin)
{
    pinMode(triggerPin, OUTPUT);
    digitalWrite(triggerPin, LOW);
    delayMicroseconds(2);
    digitalWrite(triggerPin, HIGH);
    delayMicroseconds(10);
    digitalWrite(triggerPin, LOW);
    pinMode(echoPin, INPUT);
    return pulseIn(echoPin, HIGH);
}

void setup()
{
    servo_6.attach(6, 500, 2500);
}

void loop()
{
    servo_6.write(90);

    distance = 0.01723 * readUltrasonicDistance(7, 7);

    if (distance <= 100) {
        servo_6.write(180);
    }
}
```

```
delay(1000);  
servo_6.write(90);  
}  
servo_6.write(90);  
}
```

