

## Assignment 2 :-

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:-

```
int trigpin=11;
int echopin=12;
#include<Servo.h>
Servo s;
void setup()
{
  Serial.begin(9600);
  s.attach(7);
  pinMode(trigpin,OUTPUT);
  pinMode(echopin,INPUT);
  s.write(0);
}

void loop()
{
  digitalWrite(trigpin,HIGH);
  delay(1000);
  digitalWrite(trigpin,LOW);
  float dur=pulseIn(echopin,HIGH);
  float dis=dur*0.0343/2;
  Serial.print("The distance is : ");
  Serial.println(dis);
  if(dis>80)
  {
    s.write(90);
    Serial.println("The door is opened");
    delay(7000);
    s.write(0);
    Serial.println("The door is closed");
  }
  else
  {
    s.write(0);
  }
}
```