VIT IOT - (Industry Certificate Program)

B SRAVAN KUMAR

Assignment 2

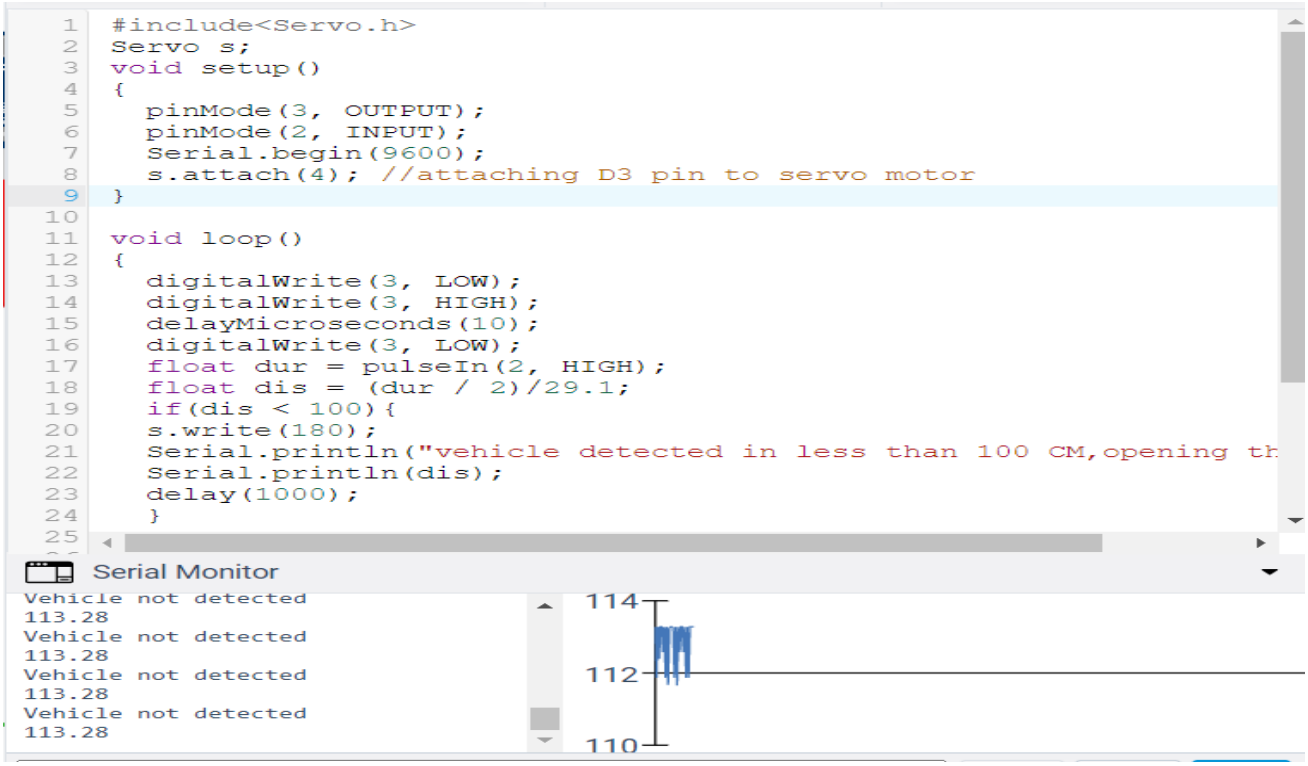
Develop an "Automatic garage door opening system". Use an Ultrasonic sensor to detect if there is a vehicle in front of the garage. if any vehicle is detected open the garage door (rotate the servo motor) for some time and close it.

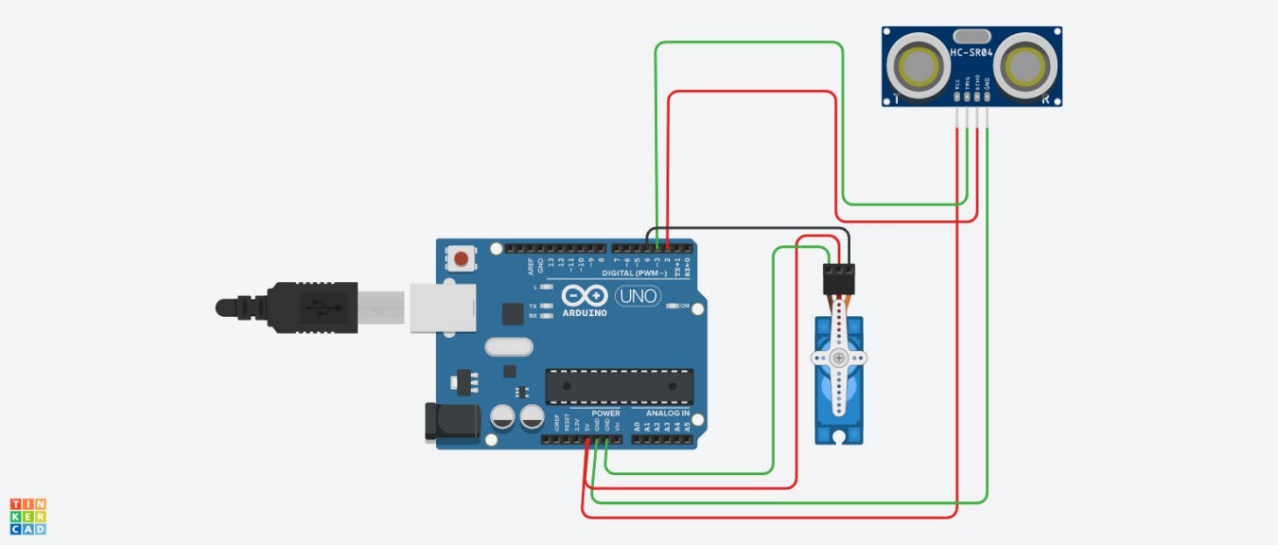
CODE:

```
#include<Servo.h>
Servo s;
void setup()
{
  pinMode(3, OUTPUT);
  pinMode(2, INPUT);
  Serial.begin(9600);
  s.attach(4); //attaching D3 pin to servo motor
}

void loop()
{
  digitalWrite(3, LOW);
  digitalWrite(3, HIGH);
  delayMicroseconds(10);
  digitalWrite(3, LOW);
  float dur = pulseIn(2, HIGH);
  float dis = (dur / 2)/29.1;
  if(dis < 100){
```

```
s.write(180);
Serial.println("vehicle detected in less than 100 CM,opening the door");
Serial.println(dis);
delay(1000);
}

else if(dis > 100){
s.write(0);
Serial.println("Vehicle not detected");
Serial.println(dis);
delay(1000);
}

}
```

OUTPUT:




HC-SR04
VCC
TRIG
ECHO
GND
DIGITAL (PWM~)
UNO
ARDUINO
POWER
ANALOG IN
TINKERCAD