int IRSensor = 2;

int pirPin = 8;

int pirStat = 0;

#define echoPin 10 // attach pin D2 Arduino to pin Echo of HC-SR04

#define trigPin 11

long duration; // variable for the duration of sound wave travel

int distance;

#include <Servo.h>

Servo myservo;

int pos = 40;

void setup()

{

myservo.attach(5);

pinMode (IRSensor, INPUT); // sensor pin INPUT

pinMode (pirPin, INPUT);

pinMode(trigPin, OUTPUT); // Sets the trigPin as an OUTPUT

pinMode(echoPin, INPUT);

pinMode(LED\_BUILTIN, OUTPUT);

Serial.begin(9600);

}

void loop()

{

pirStat = digitalRead(pirPin);

int statusSensor = digitalRead (IRSensor);

digitalWrite(trigPin, LOW);

delayMicroseconds(2);

// Sets the trigPin HIGH (ACTIVE) for 10 microseconds

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

// Reads the echoPin, returns the sound wave travel time in microseconds

duration = pulseIn(echoPin, HIGH);

// Calculating the distance

distance = duration \* 0.034 / 2; // Speed of sound wave divided by 2 (go and back)

// Displays the distance on the Serial Monitor

//myservo.write(0);

if ( distance < 10 || statusSensor == 0 || pirStat == 1 ) //&& pirStat == 0

{

myservo.write(pos);

Serial.println("GOTCHA");

delay(5000);

}

else

{

myservo.write(180);

Serial.println("NO");

}

// Serial.print("Distance: ");

Serial.print(distance);

//Serial.println(" cm");

}