#include<Servo.h>

int colour;

int echoPin = 2;

int dMs = 2;

int trigPin = 3;

int distance;

long duration;

float green;

float red;

int potIn;

int sPin = 7;

int fwdPin = 6;

int revPin = 5;

int redPin = 11;

int greenPin = 9;

int bluePin = 10;

float sAngle;

Servo s;

void setup()

{

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);

Serial.begin(9600);

s.attach(sPin);

pinMode(fwdPin, OUTPUT);

pinMode(revPin, OUTPUT);

pinMode(redPin, OUTPUT);

pinMode(greenPin, OUTPUT);

pinMode(bluePin, OUTPUT);

}

void loop()

{

digitalWrite(trigPin, LOW);

delayMicroseconds(dMs);

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

duration = pulseIn(echoPin, HIGH);

distance = duration \* 0.034 / 2;

sAngle = ((90. / 325.) \* (duration \* 0.034 / 2.));

int output = distance / 2;

analogWrite(fwdPin, output);

delay(100);

s.write(sAngle);

if(distance < 325 && distance > 125)

{

digitalWrite(bluePin, LOW);

digitalWrite(greenPin, HIGH);

digitalWrite(redPin, LOW);

}

if(distance < 125 && distance > 25)

{

analogWrite(bluePin, 0);

analogWrite(greenPin, 255);

analogWrite(redPin, 255);

}

if(distance < 25)

{

digitalWrite(bluePin, LOW);

digitalWrite(greenPin, LOW);

digitalWrite(redPin, HIGH);

}

;

delay(500);

}