#include <Servo.h>

int cm = 0;

long distancia, duracao;

int posicao1 = 180;

int posicao2 = 1;

Servo meuServo;

const int Pecho = 7;

const int Ptrig = 8;

void setup() {

Serial.begin(9600);

pinMode(Pecho, INPUT);

pinMode(Ptrig, OUTPUT);

meuServo.attach(13);

}

void loop() {

digitalWrite(Ptrig, LOW);

delayMicroseconds(2);

digitalWrite(Ptrig, HIGH);

delayMicroseconds(10);

digitalWrite(Ptrig, LOW);

duracao = pulseIn(Pecho, HIGH);

distancia = (duracao / 2) / 29.1;

float ang = map(distancia, 10, 190, 0, 180);

Serial.println(ang);

Serial.println(distancia);

meuServo.write(constrain(ang, 0, 180));

delay (500);

}