#include <Arduino.h>

#include <Wire.h>

#include <SoftwareSerial.h>

float distance = 0;

void Motors\_Forward (){

Left\_Motor\_Forward();

Right\_Motor\_Forward();

}

void Motors\_Backward (){

Left\_Motor\_Backward();

Right\_Motor\_Backward();

}

void Motors\_OFF (){

Left\_motor\_OFF();

Right\_Motor\_OFF();

}

void Left\_Motor\_Forward (){

analogWrite(5,200);

digitalWrite(6,1);

digitalWrite(7,0);

}

void Left\_Motor\_Backward (){

analogWrite(5,200);

digitalWrite(6,0);

digitalWrite(7,1);

}

void Left\_motor\_OFF (){

analogWrite(5,0);

digitalWrite(6,0);

digitalWrite(7,0);

}

void Right\_Motor\_Forward (){

analogWrite(11,200);

digitalWrite(12,1);

digitalWrite(13,0);

}

void Right\_Motor\_Backward (){

analogWrite(11,200);

digitalWrite(12,0);

digitalWrite(13,1);

}

void Right\_Motor\_OFF (){

analogWrite(11,0);

digitalWrite(12,0);

digitalWrite(13,0);

}

float getDistance(int trig,int echo){

pinMode(trig,OUTPUT);

digitalWrite(trig,LOW);

delayMicroseconds(2);

digitalWrite(trig,HIGH);

delayMicroseconds(10);

digitalWrite(trig,LOW);

pinMode(echo, INPUT);

return pulseIn(echo,HIGH,30000)/58.0;

}

void turn\_left (){

Right\_Motor\_Forward();

Left\_motor\_OFF();

}

void turn\_right (){

Left\_Motor\_Forward();

Right\_Motor\_OFF();

}

void \_delay(float seconds) {

long endTime = millis() + seconds \* 1000;

while(millis() < endTime) \_loop();

}

void setup() {

pinMode(5,OUTPUT);

pinMode(6,OUTPUT);

pinMode(7,OUTPUT);

pinMode(11,OUTPUT);

pinMode(12,OUTPUT);

pinMode(13,OUTPUT);

}

void \_loop() {

}

void loop() {

distance = getDistance(9,8);

if(round(distance) < 10){

turn\_right();

\_delay(0.5);

Motors\_Backward();

\_delay(0.5);

}else{

Motors\_Forward();

}

\_loop();

}