/\*

object avoidance. Drives forward until object

detected at 10 cm than turns randomly left or

right. pin 13 left motor forwards. pin 12 left

motor back. pin 11 right motor forwards. pin 10

right motor back

\*/

int inches = 0;

int cm = 0;

int left = 0;

int right = 0;

int front = 0;

int back = 0;

long readUltrasonicDistance(int pin)

{

pinMode(pin, OUTPUT); // Clear the trigger

digitalWrite(pin, LOW);

delayMicroseconds(2);

// Sets the pin on HIGH state for 10 micro seconds

digitalWrite(pin, HIGH);

delayMicroseconds(10);

digitalWrite(pin, LOW);

pinMode(pin, INPUT);

// Reads the pin, and returns the sound wave travel time in microseconds

return pulseIn(pin, HIGH);

}

void setup()

{

pinMode(2, INPUT);

pinMode(13, OUTPUT);

pinMode(11, OUTPUT);

pinMode(0, INPUT);

pinMode(12, OUTPUT);

pinMode(10, OUTPUT);

}

void loop()

{

while (1 < 2) {

while (0.01723 \* readUltrasonicDistance(2) > 10) {

digitalWrite(13, HIGH);

digitalWrite(11, HIGH);

// moves forward

}

if (0.01723 \* readUltrasonicDistance(0) < 10) {

right = random(1, 10 + 1);

}

if (right < 5) {

digitalWrite(12, HIGH);

digitalWrite(11, HIGH);

// turns left

} else {

digitalWrite(13, HIGH);

digitalWrite(10, HIGH);

// turns right

}

delay(10); // Delay a little bit to improve simulation performance

}