#include "NewPing.h"

#define TRIGGER\_PIN12 12

#define ECHO\_PIN13 13

#define MAX\_DISTANCE 366 // 366 IS 12FT

#define TRIGGER\_PIN10 10

#define ECHO\_PIN11 11

#define TRIGGER\_PIN8 8

#define ECHO\_PIN9 9

#define TRIGGER\_PIN7 7

#define ECHO\_PIN6 6

NewPing sonar(TRIGGER\_PIN12, ECHO\_PIN13, MAX\_DISTANCE);

NewPing sonar1(TRIGGER\_PIN10, ECHO\_PIN11, MAX\_DISTANCE);

NewPing sonar2(TRIGGER\_PIN8, ECHO\_PIN9, MAX\_DISTANCE);

NewPing sonar3(TRIGGER\_PIN7, ECHO\_PIN6, MAX\_DISTANCE);

float duration;

float duration1;

float duration2;

float duration3;

float front;

float back;

float right;

float left;

int iterations=5;

void setup() {

 Serial.begin(9600);

}

void loop() {

duration = sonar.ping\_median(iterations);

duration1 = sonar1.ping\_median(iterations);

duration2 = sonar2.ping\_median(iterations);

duration3 = sonar3.ping\_median(iterations);

// determin distance from duration

// 343 metres per second is speed of sound

front = (duration / 2) \* 0.0343;

back = (duration1 / 2) \* 0.0343;

right = (duration2 / 2) \* 0.0343;

left = (duration3 / 2) \* 0.0343;

// get results

Serial.print("Distance =");

Serial.print("|");

if (front >= 366 || front <= 5) {

Serial.print("Out of Range");

}

else {

Serial.print(front );

Serial.println(" cm");

Serial.print("|");

delay(500);

}

if (back >= 366 || back <= 5) {

Serial.print("Out of Range");

}

else {

Serial.print(back);

Serial.println(" cm");

Serial.print("|");

delay(500);

}

if (right >= 366 || right <= 5) {

Serial.print("Out of Range");

}

else {

Serial.print(right );

Serial.println(" cm");

Serial.print("|");

delay(500);

}

if (left >= 366 || left <= 5) {

Serial.print("Out of Range");

}

else {

Serial.print(left);

Serial.println(" cm");

delay(500);

}

delay(500);

}