#include "mbed.h"

#include "ultrasonic.h" //library

#include "beep.h" //library

AnalogIn trig (p17); // trig pin of ultrasonic sensor

AnalogOut echo (p18); // echo pin of ultrasonic sensor

Beep buzzer(p23);

DigitalOut myled(LED1);

DigitalOut myled1(LED2);

DigitalOut myled2(LED3);

DigitalOut myled3(LED4);

void dist(int distance)

{

if(distance < 200 && distance > 100) // within this range the led 1 will blink n buzzer(far)

{

myled = 1;

buzzer.beep(200,1.0);

}

else if (distance < 100 && distance > 50) // within this range the led green will blink (close)

{

wait(0.37); //blinks until the object is taken off as a loop

myled2 = 1;

myled3 = 1;

wait(0.37);

myled2 = 0;

myled3 = 0;

buzzer.beep(400,1.0);

}

else if(distance < 50) // within this range the led yellow will blink (close)

{

wait(0.37);

myled1 = 1;

myled3 = 0;

wait(0.37);

myled1 = 1;

myled3= 0;

buzzer.beep(600, 1.0);

}

}

ultrasonic mu(p17, p18, 0.1, 1, &dist); //trig pin on p17, echo pin on p18

//have updates every .1 seconds and a timeout after 1

//second, and call dist when the distance changes

int main()

{

mu.startUpdates();//start mesuring the distance

while(1)

{

mu.checkDistance(); //call checkDistance() as much as possible, as this is where

//the class checks if dist needs to be called.

}

}