Dobos Cosmin

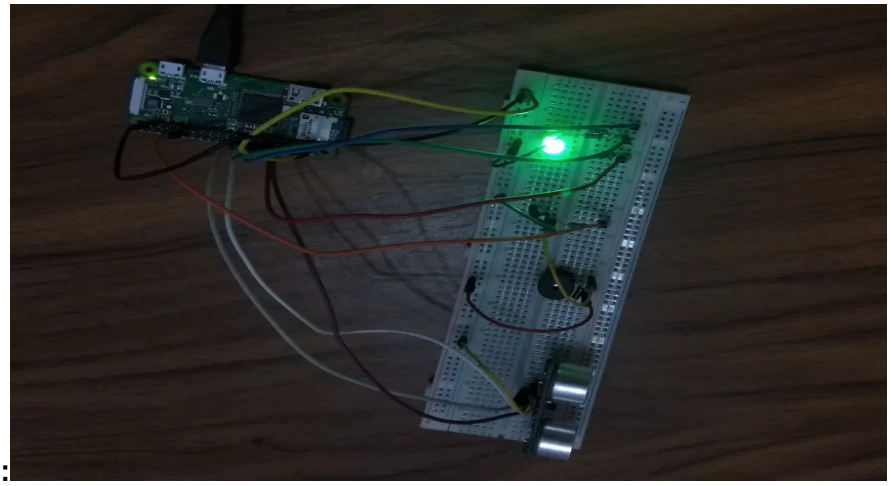
Mail:

Hackster link: https://www.hackster.io/cosmin-dobos/obstacle-detector-24a35b

Name: Obstacle detector

Elevator pitch: Depending on the distance of the objects from the sensor, the sound frequency and color of the LED's will change.

Cover Image:



Story: I thought a project that can be used in many ways. Can be attached as a sensor for a car, to secure a dangerous area or security alarm(ex. for museum exhibits).

How it works: LED color and sound frequency varies depending on the distance of the object from the sensor .

Distance of the object (x) from the sensor	Sound frequency	Led Color
X<10cm	1000Hz	Red
10cm<X< 20cm	500Hz	Purple
20cm<X<30cm	250Hz	Blue
30cm <X< 40 cm	100Hz	Yellow
X>40cm	-none-	Green

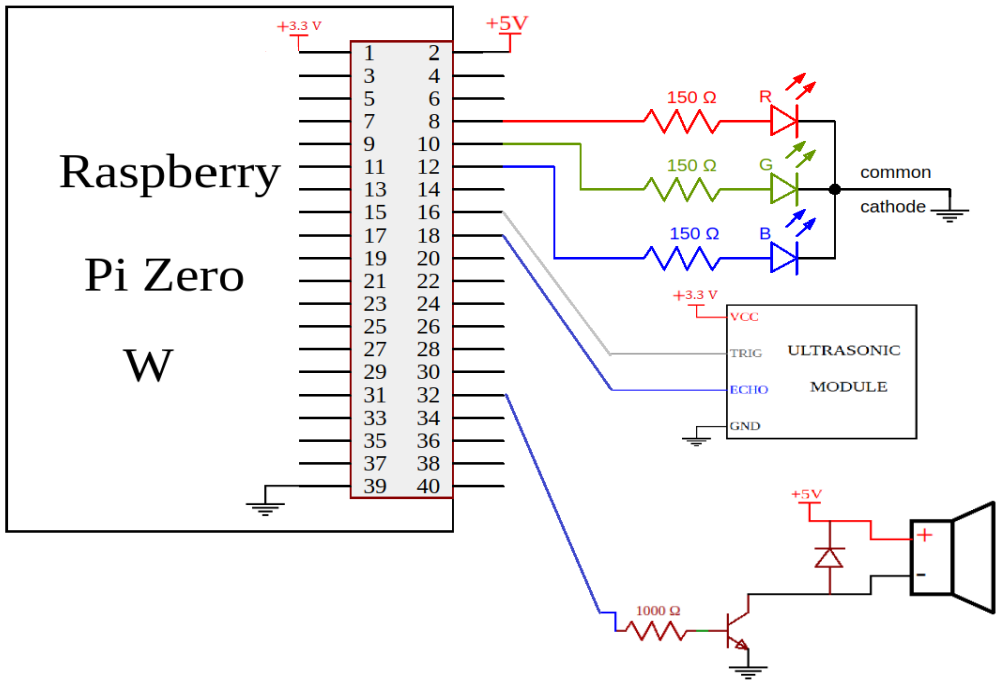
Things used in this project

Hardware components

Raspberry Pi Zero	× 1	
Buzzer	× 1	
Breadboard (generic)	× 1	
1N4007 – High Voltage, High Current Rated Diode	× 1	
General Purpose Transistor NPN	× 1	
Resistor 1k ohm	× 1	
Ultrasonic Sensor - HC-SR04 (Generic)	× 1	
LED (generic)	× 1	
Male/Female Jumper Wires	× 9	
Through Hole Resistor, 150 ohm	× 3	
male/male jumper wires	× 5	

Video:https://www.youtube.com/watch?time_continue=1&v=X_mQ-SOJ3Fg&feature=emb_title

The code:https://github.com/Dobanu123/SM-proiect/blob/master/ultimate_led_ultrasonic.py



Schematics: