

Activity

Ultrasonic Sensor

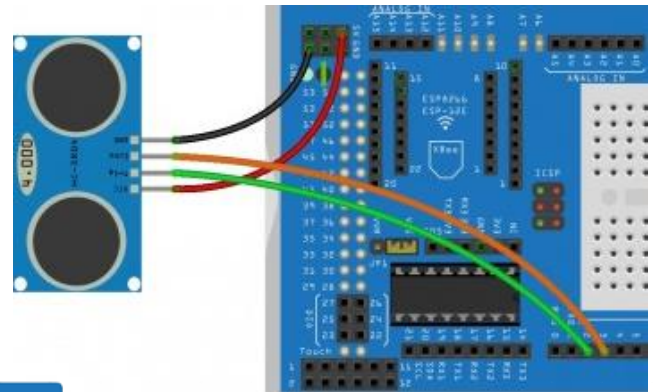
Distance Alarm System



In this activity you will learn how to program evive to read distance reading from ultrasonic sensor using PictoBlox and create a distance alarm system for blind people.

STEP-BY-STEP

1. Connect the ultrasonic sensor to evive:
 - a. GND of sensor to GND of evive.
 - b. VCC of sensor to 5V of evive.
 - c. TRIG of sensor to digital pin 2 of evive.
 - d. ECHO of sensor to digital pin 3 of evive.
2. Open **PictoBlox**, connect evive, select the Board as evive, and upload firmware.



READING DISTANCE

3. Make the script to display the sensor reading on evive display. Run the script to test the sensor.

ALARM SYSTEM

4. Make the script to create an alarm system which creates different sound according to the distance.

```

when clicked
  fill screen with [black] color
  forever
    set cursor at 10, 10
    write [Distance: [get ultrasonic sensor distance (cm) | trig 2, echo 3] cm]
  
```

STEP 3

```

when evive starts up
  forever
    set Distance to [get ultrasonic sensor distance (cm) | trig 2, echo 3]
    if Distance < 50 then
      play tone on evive Buzzer of note D8 & beat Half
    else
      if Distance < 100 then
        play tone on evive Buzzer of note D6 & beat Half
      else
        if Distance < 150 then
          play tone on evive Buzzer of note D4 & beat Half
        else
          // No sound for distance > 150 cm
    
```

STEP 4

