

# lab 7 - ultra sonic sensor and buzzer

vcc - 3volt

trig - normal pin number

echo - normal pin number

gnd - ground

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connect to ground

s - gpio number

```
import RPi.GPIO as GPIO
import time
from gpiozero import Buzzer
try:
    GPIO.setwarnings(False)
    GPIO.setmode(GPIO.BCM)
    PIN_TRIGGER = 7
    PIN_ECHO = 11
    buzzer = Buzzer(22)
    GPIO.setup(PIN_TRIGGER, GPIO.OUT)
    GPIO.setup(PIN_ECHO, GPIO.IN)
    while True:
        GPIO.output(PIN_TRIGGER, GPIO.LOW)
        GPIO.output(PIN_TRIGGER, GPIO.HIGH)
        time.sleep(0.00001)
        GPIO.output(PIN_TRIGGER, GPIO.LOW)
        while GPIO.input(PIN_ECHO)==0:
            pulse_start_time=time.time()
        while GPIO.input(PIN_ECHO)==1:
            pulse_end_time=time.time()
        pulse_duration = pulse_end_time - pulse_start_time
        distance = round(pulse_duration * 17150,2)
        print("Distance: ", distance, " cm")
        if(distance<10):
            for i in range(10):
                buzzer.on()
```

```
time.sleep(0.001)
buzzer.off()
time.sleep(0.001)

finally:
    GPIO.cleanup()
```