

PiezoBuzzer using USB DAQ

Goal is to use the NI DAQ inherited from MNS for triggering the piezo buzzer.

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APS4812B-LW100-R
48mm Piezo Speaker

Product Overview

- 48mm diameter speaker built using a piezo ceramic for minimum current draw
- Designed to work with TTL or CMOS signals as high as 30Vp-p
- Only 2.2 mm thick for slim devices that need high output
- Convenient 100mm leads for quick connection

Frequency Response (5Vp-p @ 10 cm)

Frequency (Hz)	Amplitude (dB)
100	46
200	52
300	60
400	68
500	70
600	68
700	65
800	62
900	65
1000	58
1500	65
2000	70
2500	88
3000	94
4000	82
5000	70
6000	65
7000	70
8000	85
9000	82
10000	94
12000	65
15000	75
20000	88

Logos: cfsi, RoHS Compliant, REACH COMPLIANCE

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The DAQ comes with

Installing the DAQ on Ubuntu

Does not work. Switched to Arduino Uno.

Creating sounds with Arduino

Using the toneAC library for Arduino, we can get 10V pp sounds on the piezo. (The modulate the 9 and 10 pins which can do PWM out of phase to create a larger potential difference than the maximum 5V for normal Pin out.)

If this is sufficient amplitude, we should be able to trigger the sounds from the arduino, as well as the camera.

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