

This Project is based on the schematic and arduino code by:

<http://radiopench.blog96.fc2.com/category55-1.html>
-an arduino powered Digital Storage Oscilloscope.

I've redrawn the schematic and made changes to the circuit by making it breadboard-able for use when building audio circuits.

It uses a generic Arduino-compatible **Pro Mini** circuit board and **OLED** module (128x64 / 0.96 inches).

I laid-out a circuit board and added a Power supply with voltage regulator (works between +3.7v to +12v), an Offset Adjustment (for centering the waveform (as some waveforms only showed 1/2 without the offset) and the ability to Switch between a DC or AC Coupled input.

"Select" Switch selects between Volts-Per-Division, Time-Per-Division and Positive/Negative Trigger.

Each of these can be Adjusted with the **"Up"** or **"Down"** Switches.

Max/Min Input Voltage = 50v/0.2v
Max/Min Time = 200msec/200usec

The **"Hold"** Switch Freezes/Unfreezes the Waveform.

There is also a display on the screen giving the "Average" voltage, and whether the signal is "Unsynced"

There is also the ability to **Push and Hold** (on Power Up) certain switches for additional features:

Push and Hold the "Select" Switch and turn on power for "Battery Voltage" reading.

Push and Hold the "Up" Switch for a DMV 50 Volt Range Input Meter.

Push and Hold the "Down" Switch for a DMV 5 Volt Range Input Meter.

(The "Hold" switch does not function with these features).

NOTE: I've discovered that once the Pro Mini is programmed with this code, it will no longer reprogram. I suspect that it overwrites part of the ram. May have to burn the bootloader to re-use the Pro Mini.

Circuit Board Layout, New Schematic with Modifications by VIBRATO, LLC.

AudiOscope Code is virtually unchanged from Original (removed foreign language and added "AudiOscope" print to opening display).