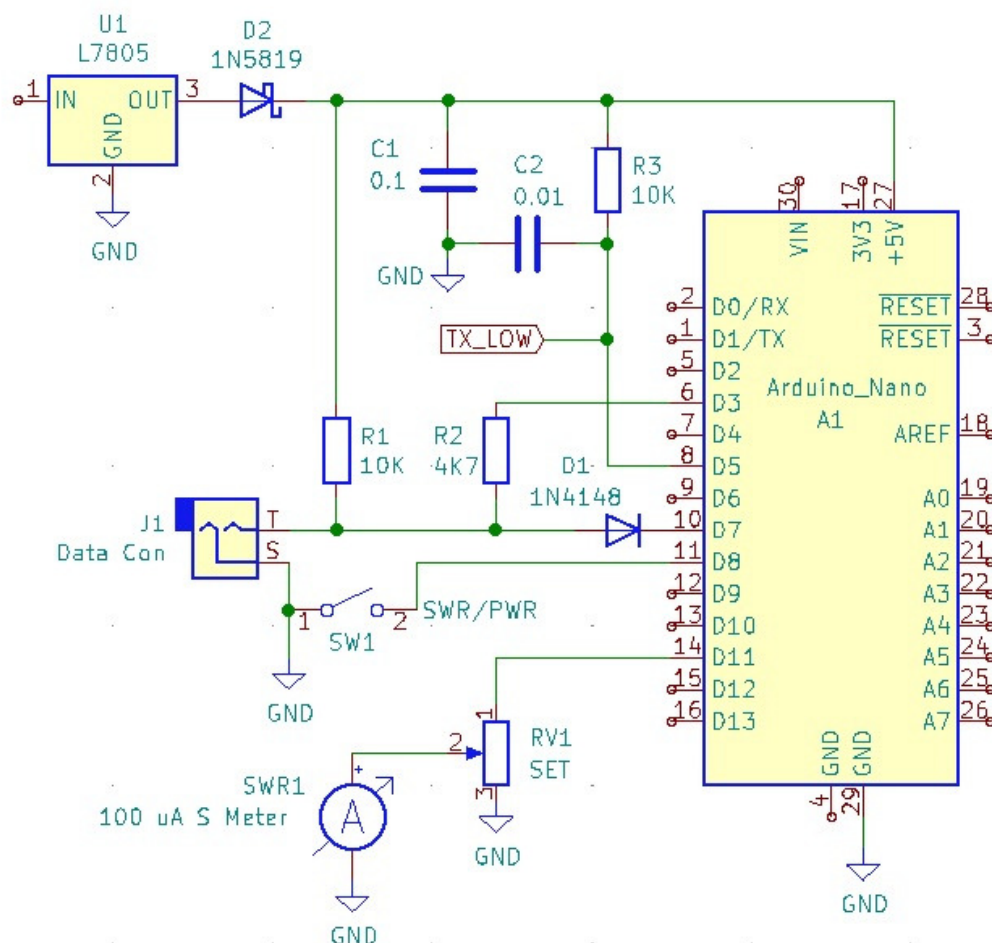


## Icom IC-7300 S Meter, SWR & Power Meter

Project to use an Arduino with CI-V codes to provide an analog meter for IC-7300 Transceiver. Please note that portions of code and design here are not original – a web search of [CI-V Arduino](#) will reveal a portion of what is here and will help in your own design.

This project used a meter and enclosure from AliExpress designed for the YAESU FT-857 FT-897 – listed mostly as a mini SWR Power Meter. The lead and internal PC Board were discarded and the meter and enclosure retained for the Icom setup. The meter is a 100uA meter.

### S Meter, PWR & SWR Meter for IC-7300



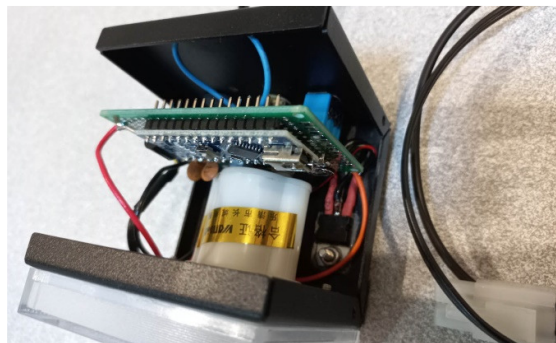
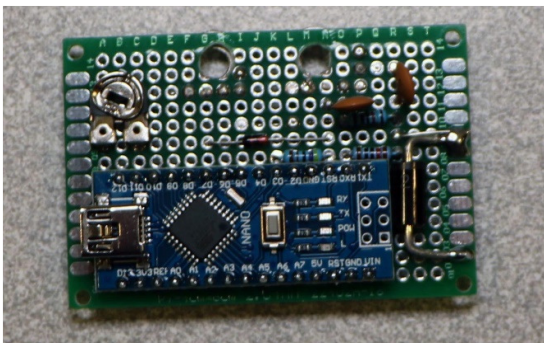
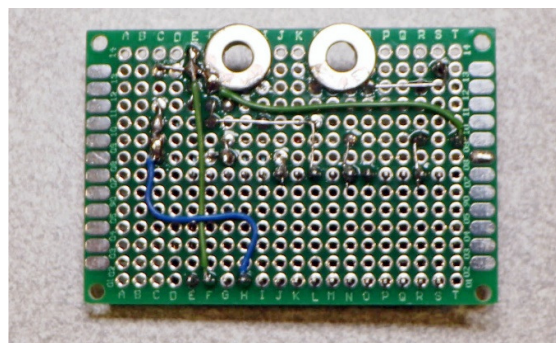
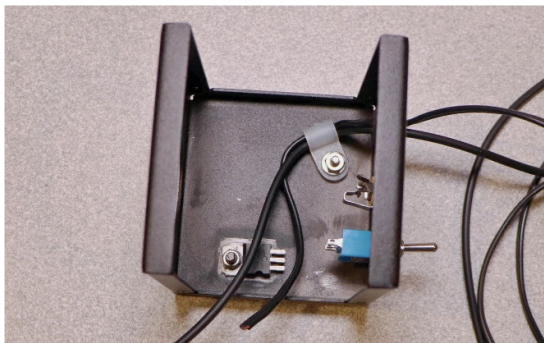
The circuit requires three external connections

1. 12v supply -ve GND and + to the 7805 Regulator – this example was connected to the 12v supply available from the **TUNER CONTROL SOCKET [TUNER]** on the rear of the IC-7300

- via a 1A fuse. This power is available when the transceiver is switched on and avoids the unit trying to communicate with the transceiver when it is switched off.
- 2. Well shielded audio connection between the **CI-V REMOTE CONTROL JACK [REMOTE]** on the rear of the IC-7300 and the **Data Con** on the meter. Mono or stereo is okay.
- 3. A shielded audio lead from the RCA socket **SEND CONTROL JACK [SEND]** on the rear of the IC-7300 to D5 on the Arduino – labelled TX\_LOW on the diagram.

SW1 was placed on the rear of the unit to switch between SWR or Power measurement when on Transmit.

RV1 is used to set the correct FSD for the meter. There is a section of the Arduino code that can be included to help with this.



Construction stages and finished project showing an S9 signal. On the rear view is the PWR/SWR switch, Data jack, power lead with Transmit lead.

## Transceiver settings

Select: Menu/SET/Connectors/CI-V

CI-V Board Rate	Auto
CI-V Address	94h
CI-V Transceive	OFF
CI-V USB-Remote Transceive Address	00h
CI-V Output (for ANT)	OFF
CI-V USB Port	Unlink from [REMOTE]
CI-V USB Baud Rate	Auto
CI-V USB Echo Back	OFF

With these settings showing both the meter and software controlling the transceiver through the USB port can work together. Software source using Delphi CI-V control through the USB port is also available on this web site.

### Please Note

This project and the software may be freely used and given away but must not be sold for profit. As always you must use it at your own risk.