

Arduino for ODROID-GO - Ultrasonic Distance Meter

- Make sure that you've followed the [Arduino setup](#) guide.



You can have a portable Ultrasonic distance meter in your hand.

Requirements

Make sure that you have these products:

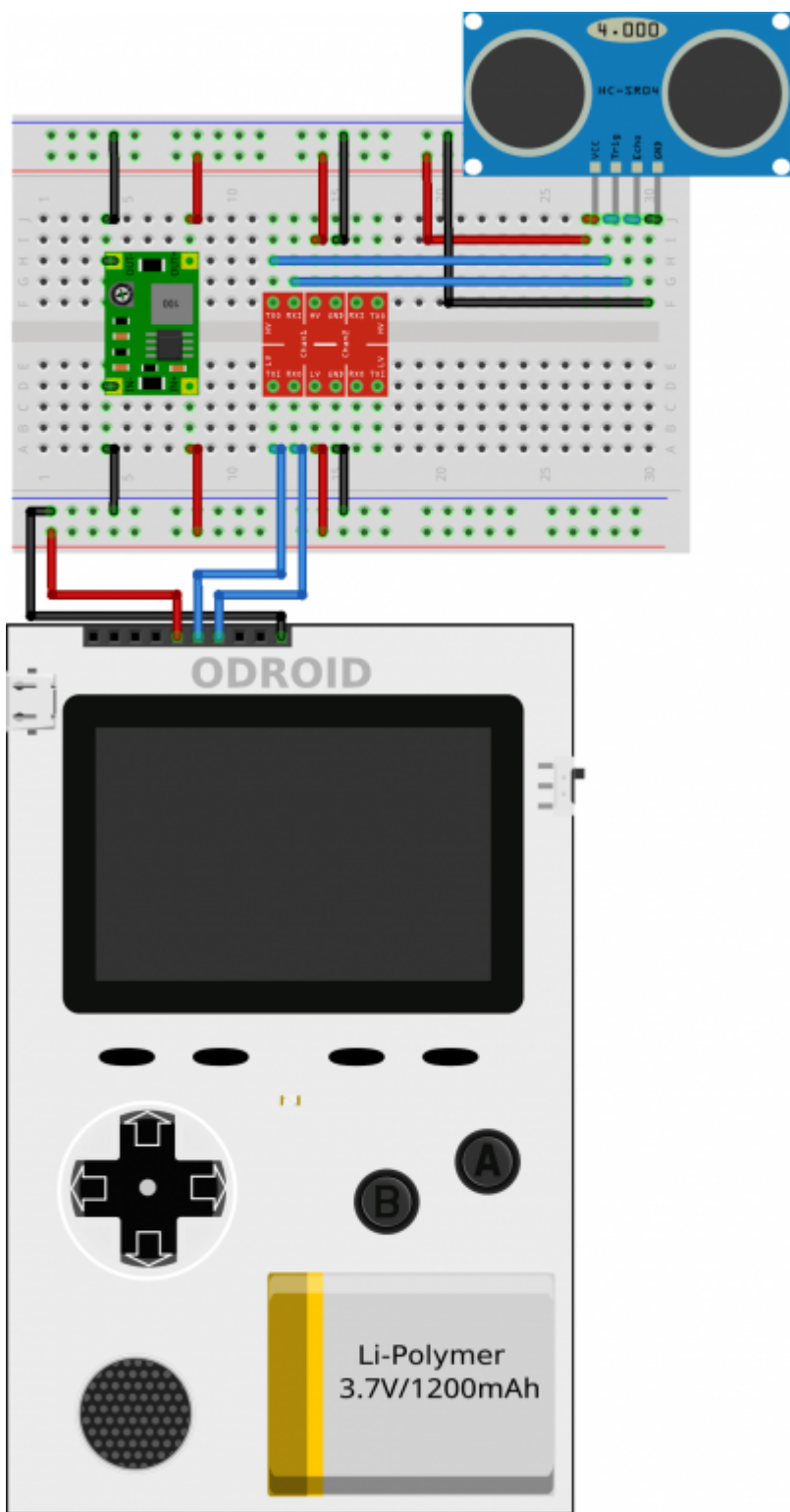
- [ODROID-GO](#)
- [Ultrasonic Ranging Module HC - SR04](#)
- [Jumper Wires](#) and a Breadboard [full size](#) or [half size](#)
- An auxiliary battery if using it portable
 - This module requires **5V input power**, but ODROID-GO outputs **3V3 for the power pin(#6)** on its header pins. Thus, it is required to use the **5V USB VBUS pin(#10)** with an external USB power source.
 - Alternatively, you can use a **Step-up DC-DC converter** and a **level shifter**.
- A MicroUSB cable

Set up the development environment for Arduino on your system.

Hardware setup

Please refer to the picture below when you set up your hardware.
We use the parts below:

- Ultrasonic sensor: [HC-SR04](#)
- Step-up DC-DC 3V3 to 12V(set to 5V for now) converter: [MT3608](#)
- Logic level converter: [BSS138](#)

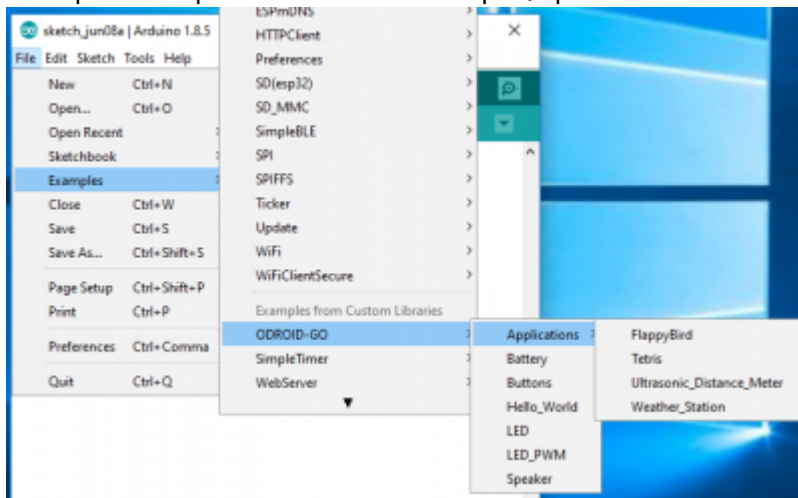


fritzing

- Download Fritzing example file: [odroid-go-ultrasonic-sensor.fzz](#)
 - ODROID-GO: fritzing_odroid-go.fzpz
 - Mini-360 DC-DC Buck converter: mini-360_dc-dc_buck_converter.fzpz
 - HC-SR04: hc-sr04.fzpz

Import and compile, upload to ODROID-GO

Click the **Files** → **Examples** → **ODROID-GO** → **Applications** → **Ultrasonic_Distance_Meter** menu to import and press **CTRL-U** to compile/upload.



Uploading is complete when the message “Hard resetting via RTS pin...” is seen.

Check if it works

After the upload completes, ODROID-GO reboots automatically.

The screen shows a measured distance in **inch**, **cm** units when an obstacle is detected at the front of the Ultrasonic sensor.

If **the measurement conditions are not met**, such as a distance that is too far or too short, the result text on the screen will be colored **red**.

If it **measures normally**, the text will be colored **green**.

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