

# 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:

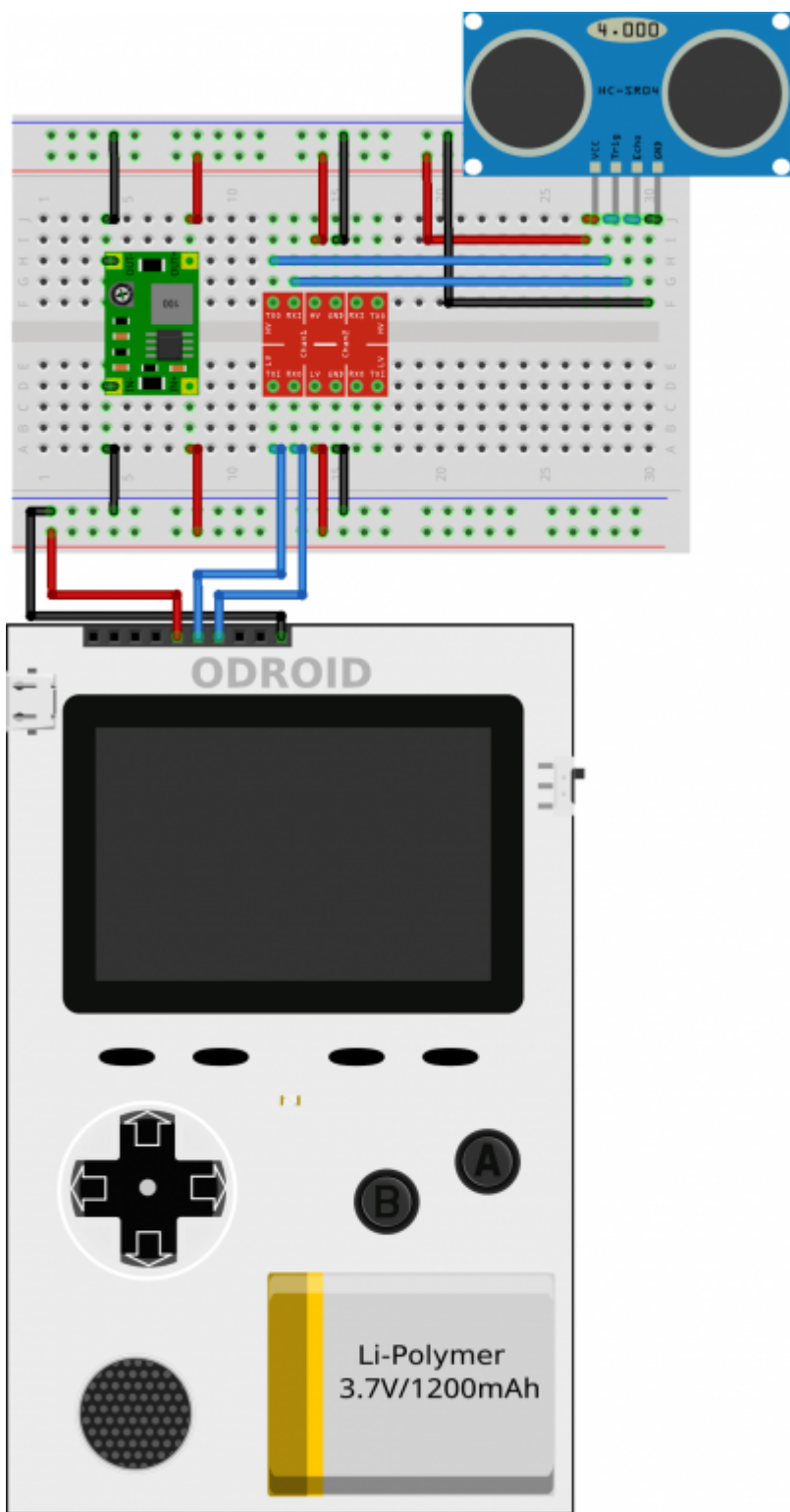
- [ODROID-GO](#)
- [Ultrasonic Ranging Module HC - SR04](#)
- [Jumper Wires](#) and a Breadboard [full size](#) or [half size](#)
- An auxiliary battery if using it portable
  - This module requires **5V input power**, but ODROID-GO outputs **3V3 for the power pin(#6)** on its header pins. Thus, it is 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](#)



- Download Fritzing example file: [odroid-go-ultrasonic-sensor.fzz](#)
  - ODROID-GO:
 

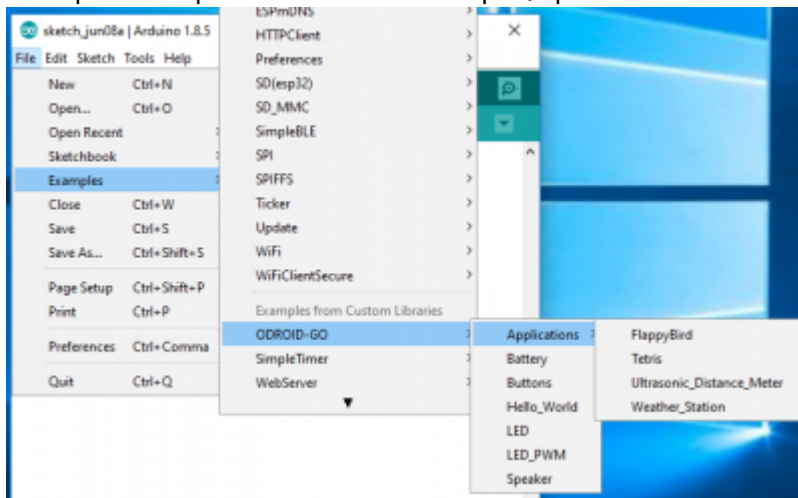
fritzing\_odroid-go.fzpz
  - Mini-360 DC-DC Buck converter:
 

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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