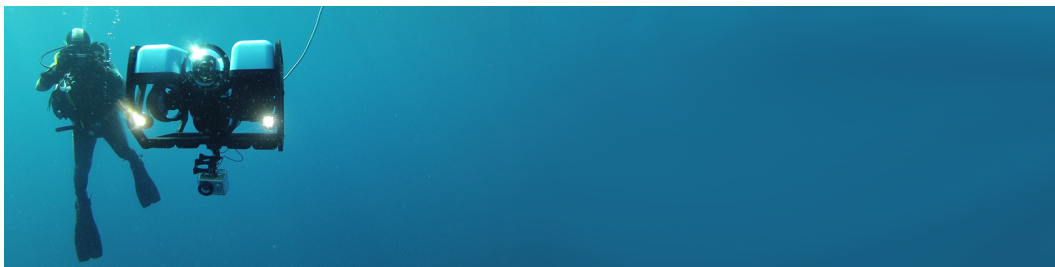


BlueROV2 Software Setup



Software Intro

These are instructions for the first time that you set up your computer to work with the BlueROV2. If you have not assembled your BlueROV2, please see our Assembly Manual (/brov2/assembly/) and assemble your BlueROV2 prior to setting up the software. If you received your BlueROV2 prior to October 24, 2016 proceed to ArduSub.com (<http://ardusub.com/initial-setup/#install-qgroundcontrol>) for software setup information. The **PbxHawks** that shipped **prior to October 24, 2016** were **not flashed with firmware** and require some **QGroundControl parameters to be changed**.

Install QGroundControl

To connect your computer to the BlueROV2, you need to download and install the latest stable build of QGroundControl (<http://qgroundcontrol.com/downloads/>).

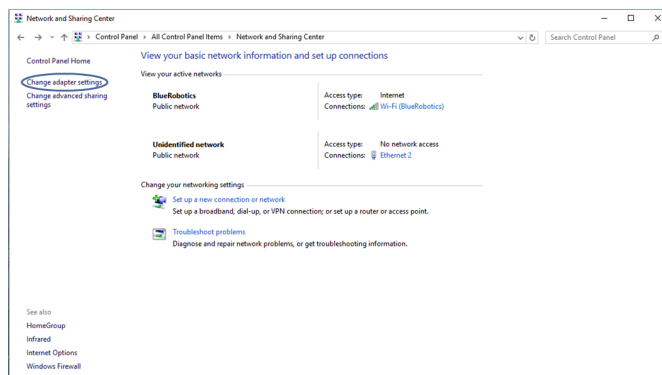
Setting Up Your Computer

If your computer does not have an Ethernet port, you will need a USB to Ethernet adaptor. We recommend using this one. (<https://www.amazon.com/Cable-Matters-Ethernet-Network-Adapter/dp/B00ET4KHJ2>)

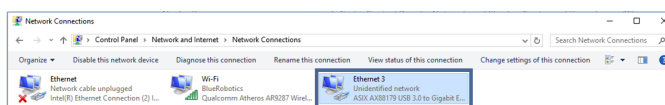
Windows Setup

Internet Sharing

1. Go to *Control Panel* > *Network and Sharing Center* and then choose "Change adapter settings".

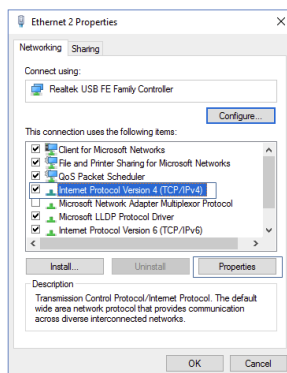


2. Right click on the Ethernet adapter, then choose *Properties*.

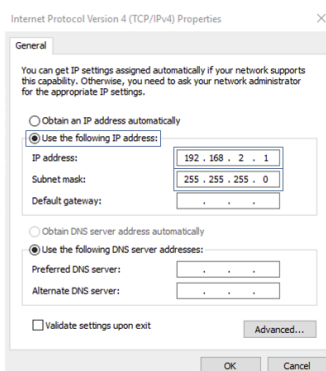




3. In the properties dialog, choose *Internet Protocol Version 4 (TCP/IPv4)*, then click *Properties*.

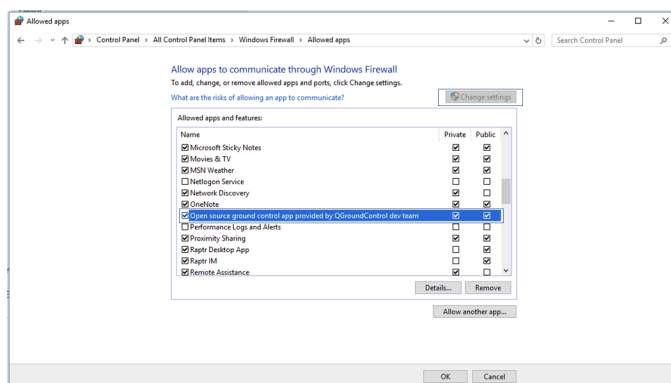


4. Select "Use the following IP address" And enter 192.168.2.1 for the IP address and 255.255.255.0 for the Subnet mask. Then select OK.



Firewall

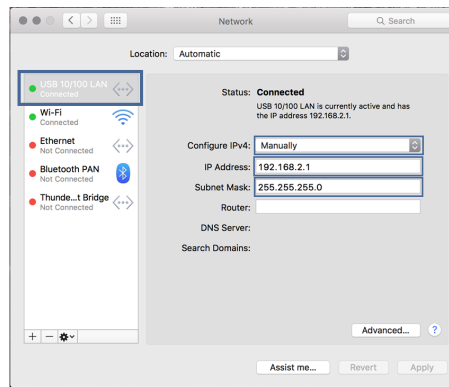
1. Go to *Control Panel > Windows Firewall* and then select "Allow an app or feature through Windows Firewall".
2. Select "Change Settings" and then select "Open source ground control app provided by QGroundControl dev team" or "QGroundControl".



Mac Setup

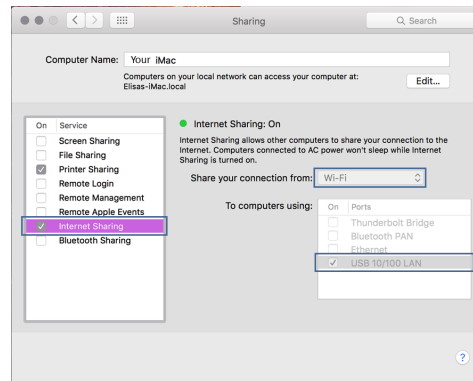
Network Settings

1. Go to *System Preferences > Network*
2. If your computer has an Ethernet port, select Ethernet from the options on the left side. If you had to get a USB to Ethernet adapter, plug it in now then select it.
3. Select the dropdown next to "Configure IPv4" and then select "Manually"
4. Enter 192.168.2.1 for the IP Address and 255.255.255.0 for the Subnet Mask and then select apply.



Sharing Settings

1. Go to *Sharing* and select "Internet Sharing".
2. Select "Wi-Fi" from the "Share your connection from" dropdown.
3. Select "USB 10/100 LAN" (if using the recommended Ethernet USB adaptor) or your Ethernet port or adapter from the "To computers using" menu.



Linux Setup

Connect Joystick to QGroundControl

Windows

XBox 360 Controller

- Plug and Play

XBox One Controller

- Wired: Plug and Play
- Wireless:
 1. Plug in Microsoft Xbox Wireless Adapter for Windows (<https://www.amazon.com/Microsoft-Xbox-Wireless-Adapter-Windows-one/dp/B00ZB7W4QU>).
 2. Turn on the controller, then press the Wireless Enrollment button on the top of the controller and on the wireless adapter.

Logitech GamePad (F710 and F310)

Logitech controllers should have the switch on the back set to "X".

Mac

XBox 360 Controller

Note: This driver is unstable for wireless Xbox 360 controllers in macOS Sierra.

1. Download the driver here (https://github.com/360Controller/360Controller/releases/download/v0.16.4/360ControllerInstall_0.16.4.dmg). For more information on this driver, see the Readme File. (<https://github.com/360Controller/360Controller#about>)
2. Install the Xbox 360 controller driver.
3. Plug in the Windows Xbox 360 Wireless Receiver for Windows.
4. Turn on the Xbox 360 Controller.

XBox One Controller There is currently no support for wireless use.

1. Download the driver here (https://github.com/360Controller/360Controller/releases/download/v0.16.4/360ControllerInstall_0.16.4.dmg). For more information on this driver, see the Readme File. (<https://github.com/360Controller/360Controller#about>)
2. Install the Xbox 360 controller driver.
3. Plug in the Xbox One Controller directly to the computer using a micro USB cable.
4. Turn on the Xbox One Controller.

Logitech GamePad (F710 and F310)

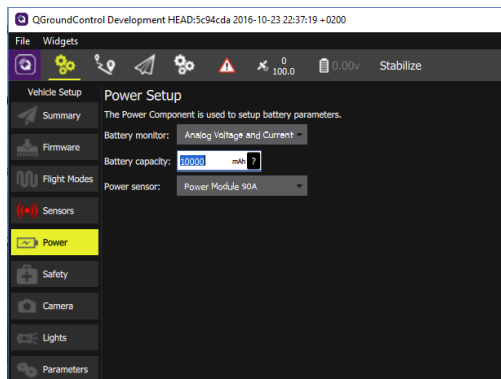
Logitech controllers should have the switch on the back set to "X"

Linux

4. Move the right joystick forwards and verify that the thrusters are running the correct way. Air should be blowing out of the two vertical thrusters towards the bottom of the vehicle. If one of the thrusters is blowing air towards the top, go to *Settings* in QGroundControl, then go to *Parameters* and select *MOT*. Select the motor that is blowing air towards the top and switch the motor direction using the dropdown on the right.

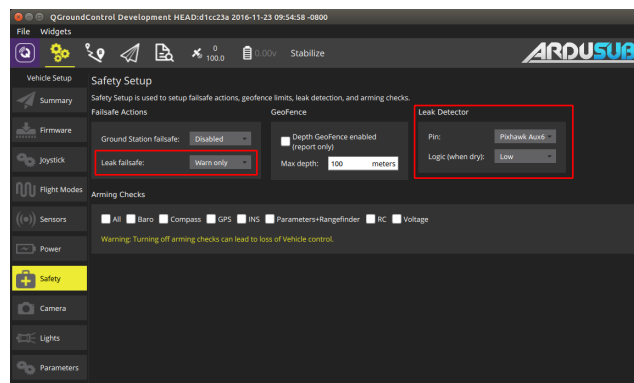
Voltage and Current Measurement Setup

The default settings for voltage and current measurement are for the Multistar High Capacity 4s 10,000mAh (http://www.hobbyking.com/hobbyking/store/uh_viewItem.asp?idProduct=56844) battery that we recommend. If you select a different battery, you can adjust your voltage and current measurement setup by going to *Settings* then select *Power*. The only thing that you will need to change is the "Battery capacity", which can be changed by simply typing in the size of the battery into the box.



SOS Leak Sensor Setup

In the Safety tab, select "Pixhawk Aux6" as the leak detector pin, and set the Logic when dry to "Low."



To The First Dive!

Your computer setup is now complete! Please see our Operations Manual (/brov2/operation/) to finish getting ready for your first dive!

Issue Reporting

We're always trying to make our documentation, instructions, software, and user experience better. If you're having an issue with anything, please report it so that we can address it as soon as possible! Here's where to do that depending on what's wrong:

- **ArduSub Issues:** For anything related to the ArduSub software that runs on the Pixhawk and controls the ROV, reports issues on the ArduSub Github Issues Page (<https://github.com/bluerobotics/ardusub/issues>). If you're unsure where your issue should be posted, you can report it here.
- **QGroundControl Issues:** For anything related to the QGroundControl software, joystick setup, video streaming, etc., please report an issue on the QGroundControl Github Issues Page (<https://github.com/mavlink/qgroundcontrol/issues>).
- **Documentation:** For anything related to the documentation and instructions here, please report an issue on the Blue Robotics Documentation Github Issues Page (<https://github.com/bluerobotics/bluerobotics.github.io/issues>).