

Build QGroundControl on Jetson

QT-5.15.2 Requirements.

Build essentials

```
sudo apt-get install build-essential perl python3 git
```

Libxcb

```
sudo apt-get install '^libxcb.*-dev' libx11-xcb-dev libglu1-mesa-dev libxrender-dev  
libxi-dev libxkbcommon-dev libxkbcommon-x11-dev
```

Accessibility

```
sudo apt-get install libatspi2.0-dev libdbus-1-dev
```

Qt WebKit

```
sudo apt-get install flex bison gperf libicu-dev libxslt-dev ruby
```

Qt WebEngine

```
sudo apt-get install libxcursor-dev libxcomposite-dev libxdamage-dev libxrandr-dev  
libxtst-dev libxss-dev libdbus-1-dev libevent-dev libfontconfig1-dev libcap-dev  
libpulse-dev libudev-dev libpci-dev libnss3-dev libasound2-dev libegl1-mesa-dev gperf  
bison nodejs
```

Qt Multimedia

```
sudo apt-get install libasound2-dev libgstreamer1.0-dev libgstreamer-plugins-base1.0-dev  
libgstreamer-plugins-good1.0-dev libgstreamer-plugins-bad1.0-dev
```

QDoc Documentation Generator Tool

```
sudo apt install clang libclang-dev
```

SSL Support

```
sudo apt install libssl-dev
```

Warning: SSL Support by default is optional in QT so you may be attempted to skip it; don't because we need it to build QGroundControl

QGroundControl Requirements.

Additional Packages

```
sudo apt-get install speech-dispatcher libudev-dev libsdl2-dev patchelf build-essential curl
```

Download and Build QT-5.15.2

Download QT-5.15.2

```
wget http://master.qt.io/archive/qt/5.15/5.15.2/single/qt-everywhere-src-5.15.2.tar.xz
tar -xpf qt-everywhere-src-5.15.2.tar.xz
cd qt-everywhere-src-5.15.2
```

Configure QT-5.15.2

```
sudo ./configure -opensource -confirm-license -dbus-linked -openssl-linked -skip
qtwebengine
```

Note: make sure that you are inside `qt-everywhere-src-5.15.2` folder.

you should see the following

```
Note: Also available for Linux: linux-clang linux-icc
Note: When linking against OpenSSL, you can override the default
library names through OPENSSL_LIBS.
For example:
    OPENSSL_LIBS='-L/opt/ssl/lib -lssl -lcrypto' ./configure -openssl-linked
Qt is now configured for building. Just run 'make'.
Once everything is built, you must run 'make install'.
Qt will be installed into '/usr/local/Qt-5.15.2'.
Prior to reconfiguration, make sure you remove any leftovers from
the previous build.
```

Build QT-5.15.2

```
sudo make
sudo make install
```

Note: `sudo make` step will take a couple of hours.

Copy/Create missing files and folder to `/usr/local/Qt-5.15.2`

```
sudo cp /usr/lib/aarch64-linux-gnu/libicu18n.so* /usr/local/Qt-5.15.2/lib/  
sudo cp /usr/lib/aarch64-linux-gnu/libicudata.so* /usr/local/Qt-5.15.2/lib/  
sudo cp /usr/lib/aarch64-linux-gnu/libicuuc.so* /usr/local/Qt-5.15.2/lib/  
sudo mkdir /usr/local/Qt-5.15.2/plugins/texttospeech
```

Warning: the missing files/folder shown above are needed to build QGroundControl.

Download and Build QGroundControl.

Clone QGroundControl Repository

```
git clone --recursive -j8 https://github.com/mavlink/qgroundcontrol.git
```

Note: make sure that you aren't inside `qt-everywhere-src-5.15.2` folder.

Configure QGroundControl

```
cd qgroundcontrol/  
mkdir build  
cd build  
sudo /usr/local/Qt-5.15.2/bin/qmake DEFINES=DISABLE_AIRMAP ../
```

Build QGroundControl

```
sudo make
```

Warning: you may want to use 1gb swap memory if you are building QGroundControl on Jetson Nano!.

Access Serial Devices

```
sudo usermod -a -G dialout $USER  
sudo apt-get remove modemmanager
```

Launch QGroundControl

```
./staging/QGroundControl
```