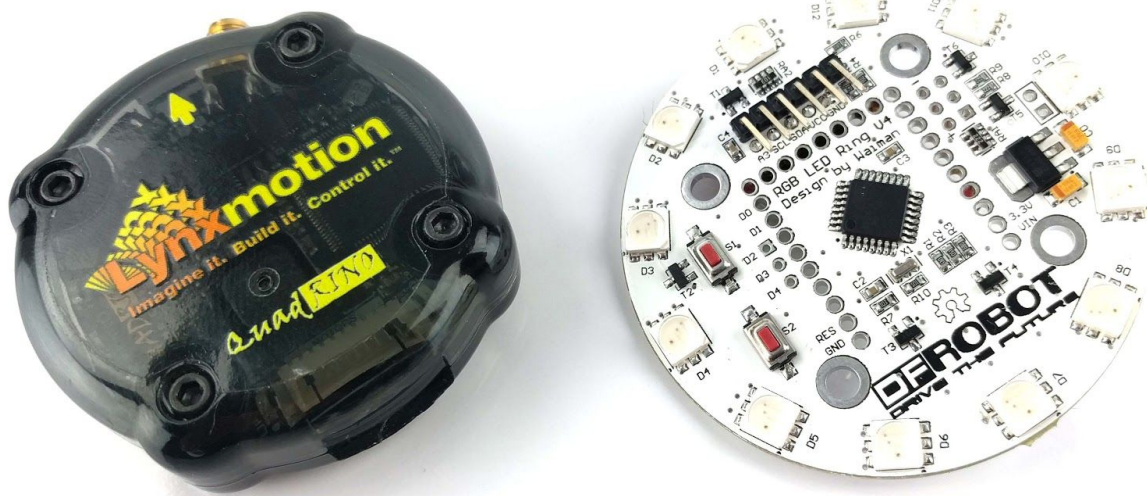




DFRobot LEDring with MultiWii

V0.1 - February 2017

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Items required:

- FTDI adapter ([DFRobot suggested](#))
- [DFRobot LEDring module](#)
- [Quadrino Nano Flight Controller](#)
- Quadrino Nano I2C Wiring Harness (included with the Quadrino Nano)

Software required:

- [Lynxmotion FCT](#)
- [Arduino IDE](#)

1.0 - DFRobot Ring Setup

1.1 - Arduino IDE boards

In order to reprogram the DFRobot LEDring with the needed project, you will have to add a new board to the list of supported devices in the Arduino IDE. This is as simple as adding the text to the board.txt file in the Arduino installation folder.

The file is located here:

C:\Program Files (x86)\Arduino\hardware\arduino\avr\boards.txt

You have to add the following to the end of the doc. We suggest using Notepad++ but it can be done in other software as well. This text is also available in the zip file.

#####

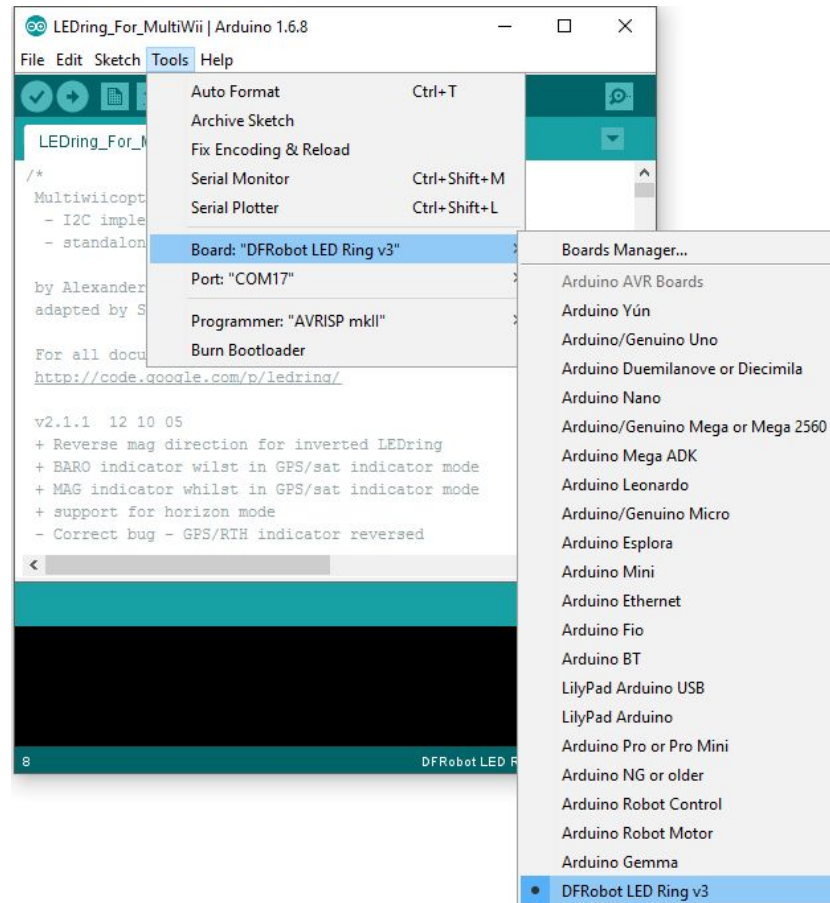
```
lilypado.name=DFRobot LED Ring v3
lilypado.build.board=AVR_LILYPAD
lilypado.upload.tool=avrdude
lilypado.bootloader.tool=avrdude
lilypado.upload.protocol=arduino
lilypado.upload.maximum_size=14336
lilypado.upload.speed=115200
lilypado.build.mcu=atmega168
lilypado.build.f_cpu=8000000L
lilypado.build.core=arduino
lilypado.build.variant=standard
```

#####

Note: Sometimes you have to copy the “boards.txt” elsewhere to edit it and put it back in it’s original location.

1.2 - LEDring Flashing

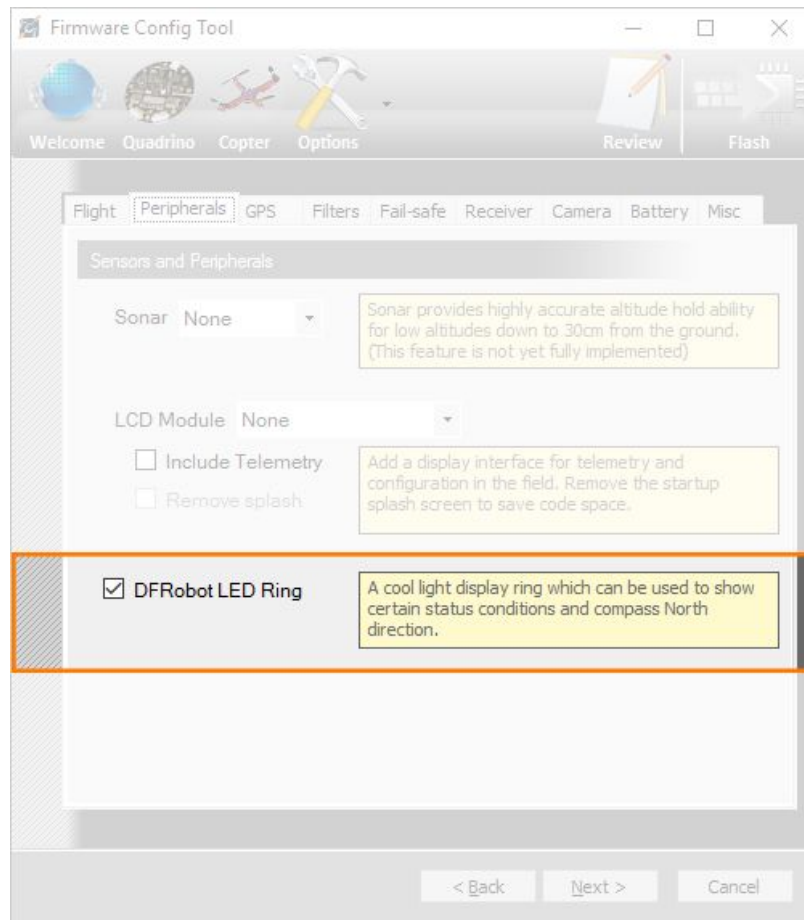
Now the board should be available in the list of boards of the Arduino IDE software. Open the "LEDring_for_MultiWii.ino" project and select the "DFRobot LED Ring v3" board as well as COM port number for your FTDI adapter. Now you can flash the project.



2.0 - Quadriano Nano Setup

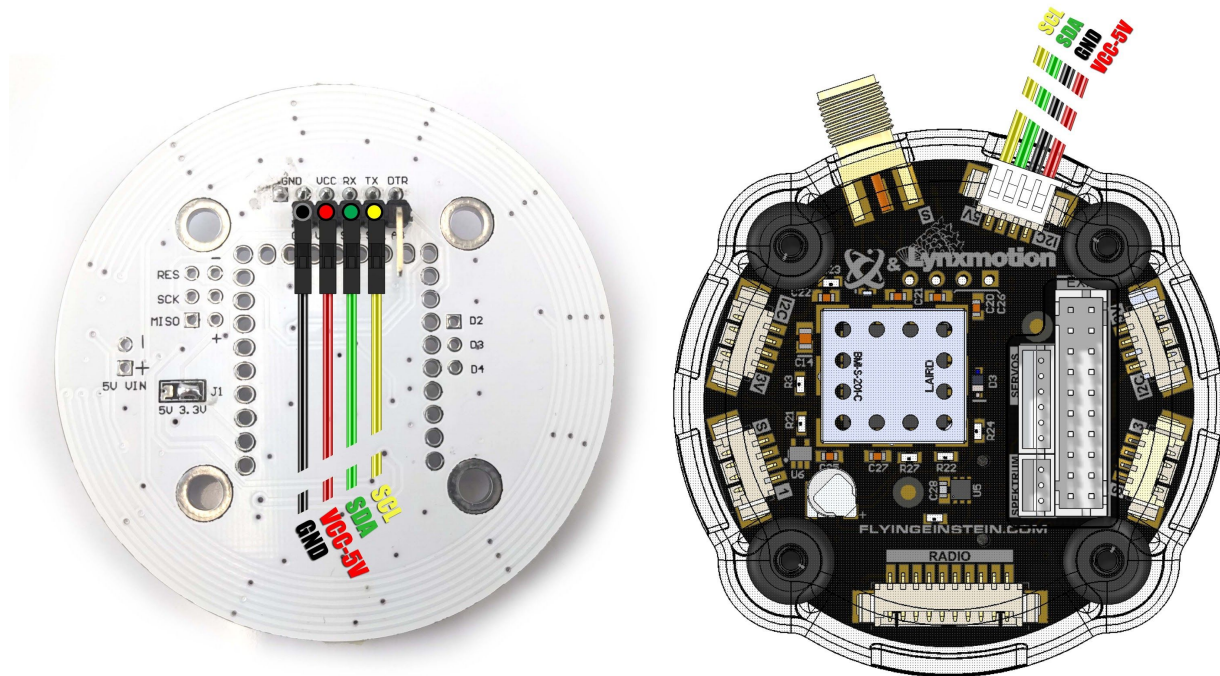
2.1 - FCT Option

The option is already present in the FCT application so you just have to set it and flash your flight controller.



2.2 - Wiring

Using the Quadrino Nano I2C cable, connect the LEDring to the Quadrino on the 5V I2C port. Here are two images that show how to properly connect the cable on both ends.



Sources

<https://code.google.com/archive/p/ledring/wikis>

[https://www.dfrobot.com/wiki/index.php/Rainbow_Ring_V3_\(SKU:DFR0141\)](https://www.dfrobot.com/wiki/index.php/Rainbow_Ring_V3_(SKU:DFR0141))