RFduino

10/10/2013

Updated:
Mac OSX support and instructions
FTDI Driver installation

Quick Start Guide (Preliminary DRAFT)

Dear Kickstarter Backer,

Thank you for backing the RFduino project.

Here is our preliminary draft instruction document for the RFduino. We are in the process of updating this document and putting together application demonstration videos for you.

We are doing a controlled release of this document and the link to the RFduino library only to Kickstarter Backers who's rewards have already shipped. This is being done make sure the rollout is at a rate where to allow for appropriate time for us to receive feedback from you and make updates to the library if required before this document and links begin to spread all over the web. Therefore we respectfully request for you to not publish this document containing the library link until we receive enough feedback. We will email you to let you know we're at that point.

Follow this quick start user's guide to get your RFduino up and running! – *RFduino Team*

NOTE - In addition to this document, also see the other documents included in your email which explain how to use the RFduino shields included in different Kickstarter pledge levels.

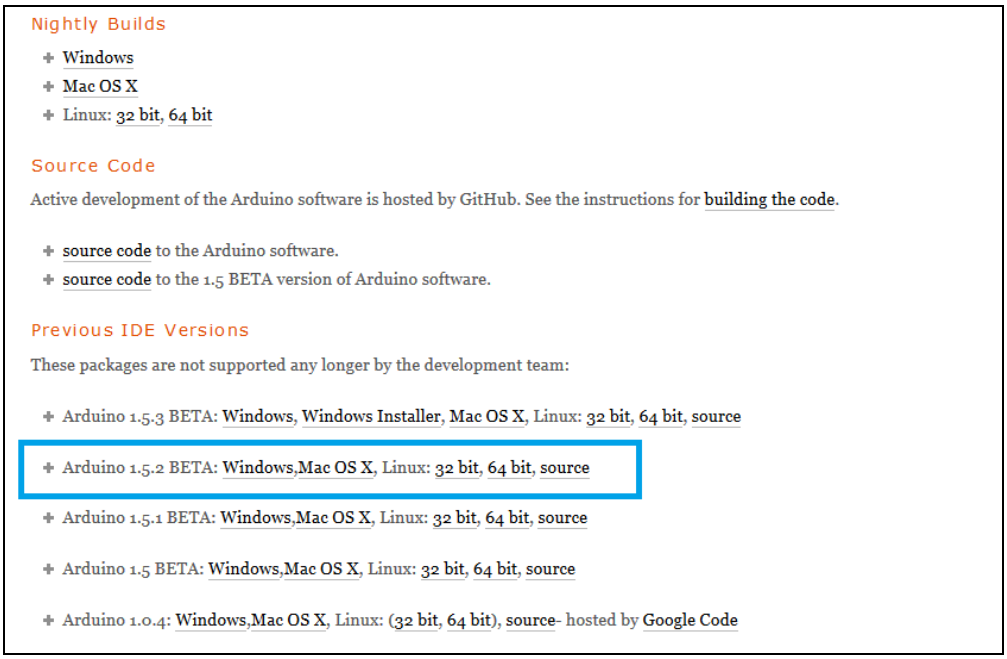
Please let us know what you think. What you like, what you dislike, what is missing, what you would like to see. Quality is very important to us, please let us know how your package looked and how everything worked for you. Please email support@RFduino.com and let us know.

Setting up the Software

For Windows:

Arduino IDE Setup

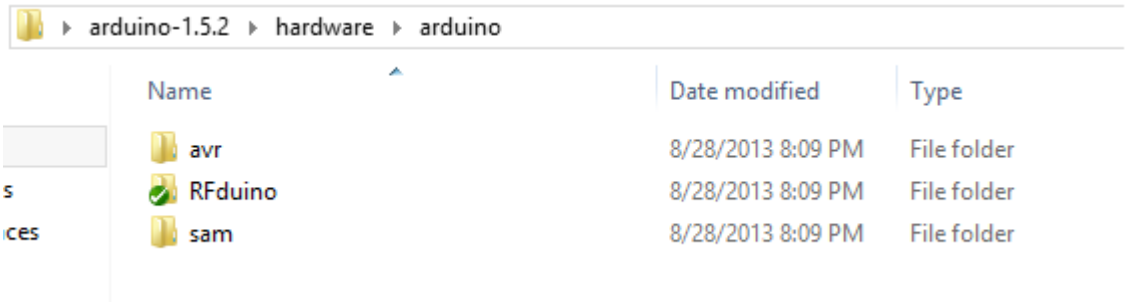
1. Visit the following link: http://arduino.cc/en/main/software
2. The below has instructions to download and install version 1.5.2 but since then they have updated to 1.5.4 and you can use either one.
3. Scroll down the page and find “Arduino 1.5.2 BETA” under “Previous IDE Versions”



4. Download “Arduino 1.5.2 BETA” for Windows or Mac OS
5. For Windows extract the zip file to a folder of your choice, we recommend ‘C:\arduino-1.5.2-windows’ . For Mac copy the Arduino app in the zip file to your Applications folder.

RFduino Library Setup for Windows

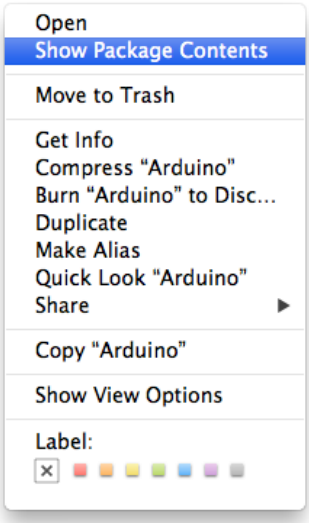
1. Download the RFduino Library from the following link: http://www.rfduino.com/RFduino305.zip
2. Extract the RFduino Library to your Arduinos hardware directory “\arduino-1.5.2\hardware\arduino”



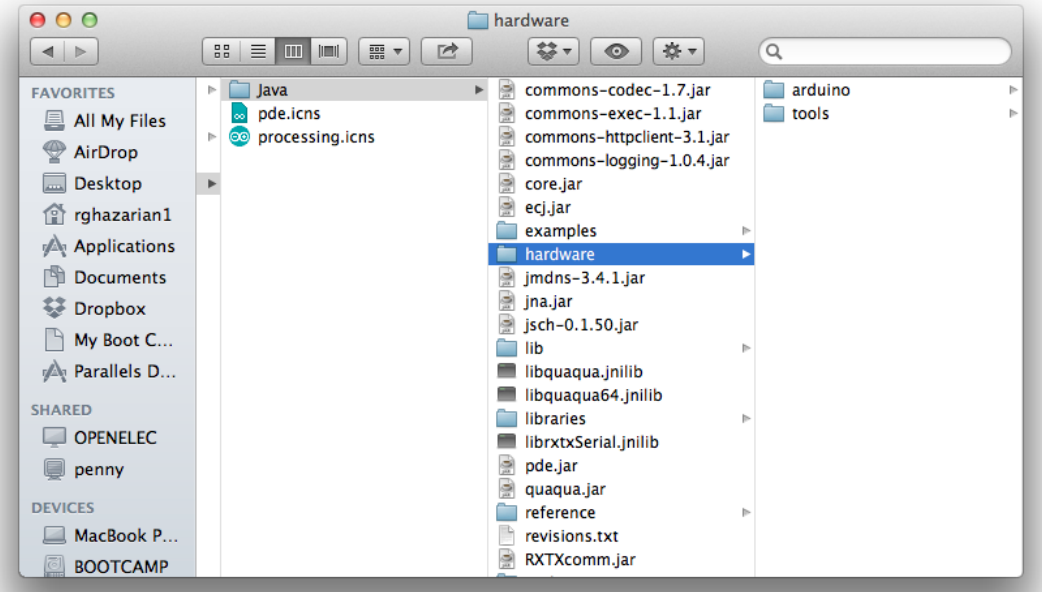
3. Launch the Arduino application

RFduino Library Setup for Mac OS

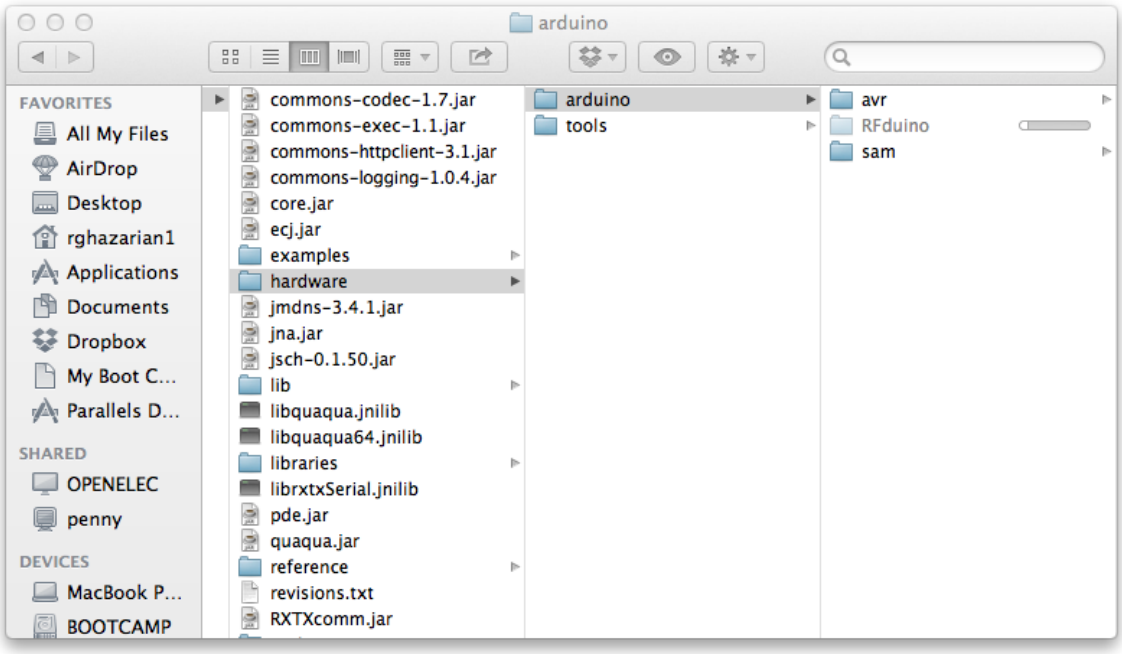
1. Download the RFduino Library from the following link: http://www.rfduino.com/RFduino305.zip
2. Right click on the Arduino App and select “Show Package Contents”



3. Navigate to the “hardware” folder -> Contents\Resources\Java\hardware\arduino



4. Copy the “RFduino” folder you downloaded to the “hardware\arduino” folder

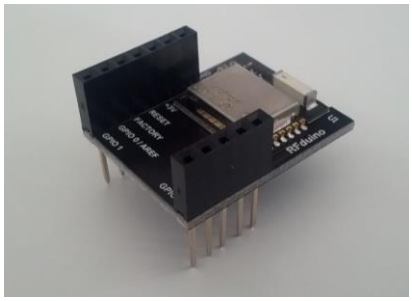


5. Launch the Arduino application

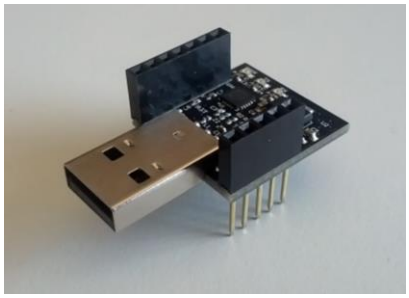
Setting up the Hardware

Hardware Needed:

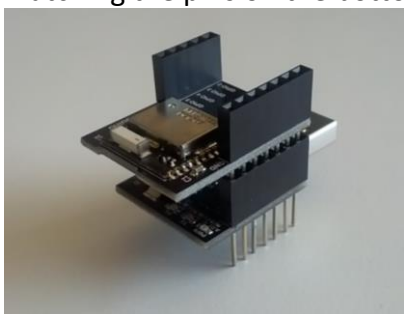
1x RFduino BLE Module Board



1x RFduino USB Shield



1. Download and install the FTDI USB drivers from http://www.ftdichip.com/Drivers/VCP.htm instructions are available here http://www.ftdichip.com/Support/Documents/InstallGuides.htm
2. Connect the “RFduino BLE Module Board” with the “RFduino USB Shield” by matching the pins on the bottom with the headers on the top.

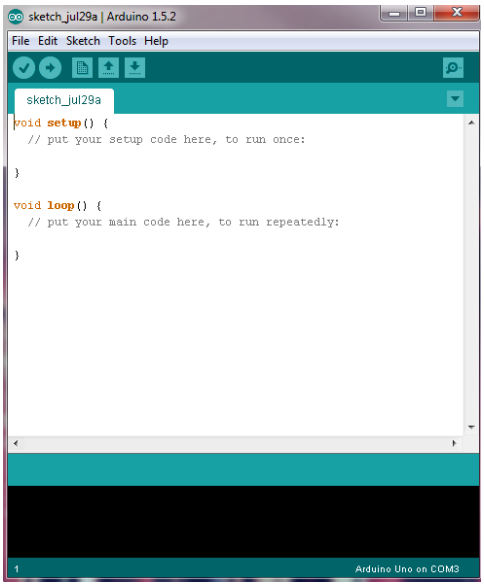


NOTE: It does not matter which Shield is on top. You can configure them to your liking.

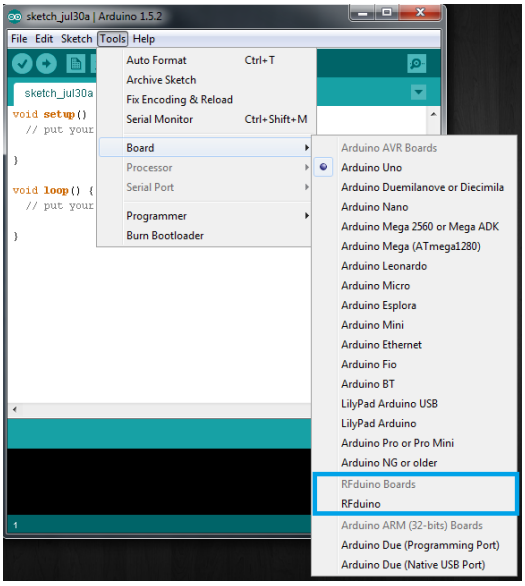
3. Plug in the RFduino via the USB Connector to a USB port on your computer or laptop
4. The drivers will automatically install. Please wait until installation is finished.
5. Restart your computer to complete installation

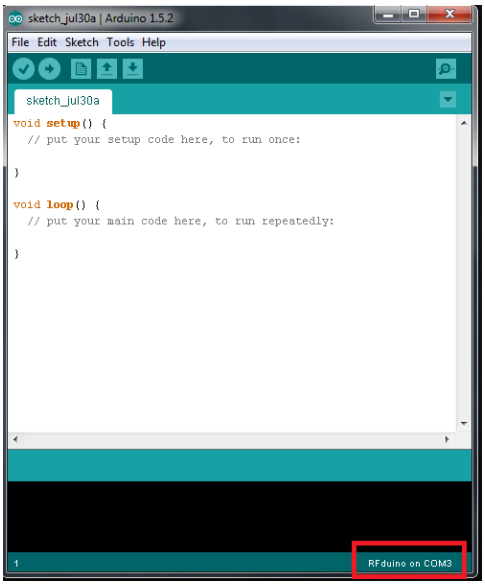
Setting up the Arduino IDE

1. To run the Arduino IDE, go to the following directory ‘C:\arduino-1.5.2-windows\arduino-1.5.2’ and run "arduino”



2. Setup the Arduino IDE by Heading to the top menu, select “Tools”, highlight “Board” and click on “RFduino”
3. To confirm that RFduino was chosen, you will see RFduino on the bottom right hand side of the window “RFduino on COM#”





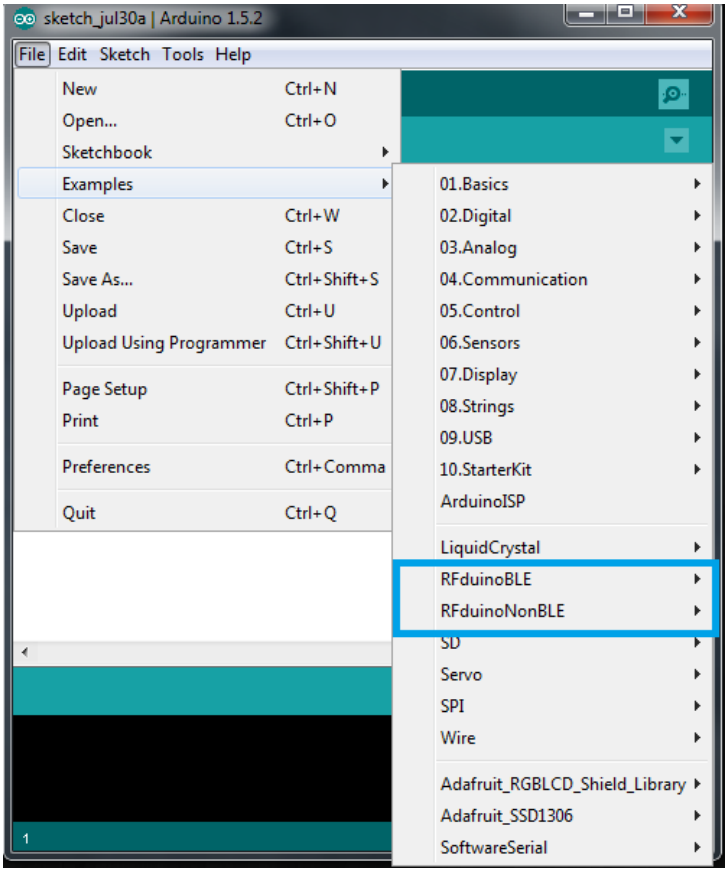
4. Select the COM port by heading to the top menu again, select “Tools” highlight “Serial Port” and click on the Port that the RFduino is on. On Mac OS the comm will be called /dev/tty.usbmodemxxxxxx
5. You are now ready to start programming!

Example Sketches

Example sketches for the RFduino can be found under File\Examples. With the RFduino board selected from the previous step, you can now view the RFduino example sketches. There are two sections: (1) RFduino NonBLE, and (2) RFduino BLE.

- RFduinoNONBLE are the original example sketches written by Arduino, modified to work for RFduino and its accessory shields.

- RFduinoBLE contains the function calls needed to work with Bluetooth Low Energy devices. It also contains function calls, as well as descriptions, which explains what each function does.



Schematics

RFduino
http://files.rfdigital.com/rfd22102_r400_b001_sch.pdf
USB Shield
http://files.rfdigital.com/rfd22121_r401_b001_sch.pdf
RGB Button Shield
http://files.rfdigital.com/rfd22122_r402_b001_sch.pdf
Servo Shield
http://files.rfdigital.com/rfd22123_r403_b001_sch.pdf
PCB USB Shield
http://files.rfdigital.com/rfd22124_r404_b001_sch.pdf
Prototyping Shield

http://files.rfdigital.com/rfd22125_r405_b001_sch.pdf
2 x AAA Battery Shield
http://files.rfdigital.com/rfd22126_r406_b001_sch.pdf
1 x AAA Battery Shield
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CR2032 Coin Battery Shield
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Dual Relay Sheild
http://files.rfdigital.com/rfd22131_r410_b001_sch.pdf

We're just getting started! Much more information to follow...

End of document.