

Hello and welcome to your first mbed application walk through.

MBED Overview

The mbed you have will consist of an mbed application board with an mbed microcontroller chip installed. The microcontroller does the thinking, the application board has a few fun components like an LCD, joystick, Ethernet jack and other elements which can be used to run various types of basic programs.

Before you begin, make sure that your microcontroller chip (the thing on top) of your mbed application board is installed properly. The micro-usb port should be on the same side as the Ethernet jack. When you plug in the board, the LCD will light up if it is configured properly. Otherwise, please rotate the chip and re-install it.

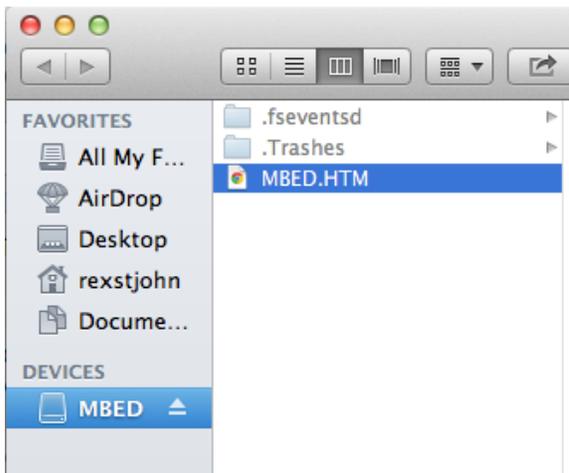
Setting Up Your MBED

2 Mbed Up and Running

1. Plug in your mbed board via your USB cable. The LCD will light up if the chip is correctly configured.
 - a. You should see some indication that your mbed is connected as below



2. Open the mbed folder, you should see mbed.htm



- a. Double click to open the mbed.htm, if you don't have an account, sign up, otherwise log in with your existing credentials



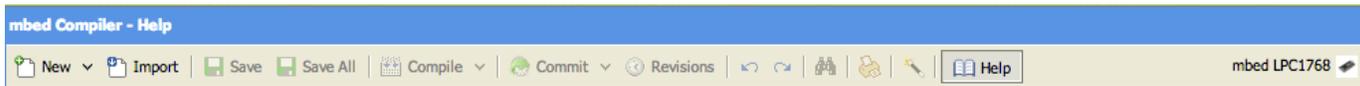
- b. You may get a message to the effect that your mbed's firmware is not up to date
 - i. Download the appropriate ".if" file,
 - ii. Drag and drop the file into your mbed folder

- iii. Eject the embed like a USB properly and then power cycle the embed by removing the USB plug then putting it back in.
- iv. The new firmware will install automatically.

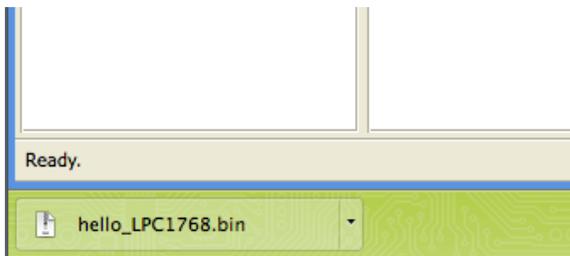
Your First Program

Next, we will compile and install a first program to prove that we can indeed get the mbed responding to our commands.

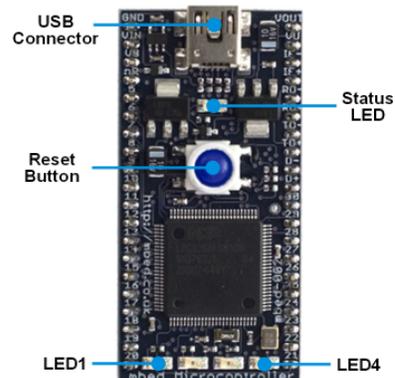
1. Navigate to the web based compiler: <https://mbed.org/compiler/>
2. Click “New” in the toolbar on the far left



3. A new program will automatically be generated which causes a light to blink on your mbed board
4. Click “Compile” which should now be lit up
5. A “.bin” file should appear in your downloads, follow the below instructions to install the file



Installing A Binary Onto Your mbed



1. Download the .bin file onto your computer

2. Drag and drop the .bin file into your mbed folder (lights should blink as the file copies)
3. Press the reset button (blue button in the center)
4. Allow the mbed to reboot
5. Your program will now run
 - a. If your program does not run, eject the device and power cycle it. In some situations this may be a required step.

If you eject your mbed and disconnect from a power source or hit the reset button again, your mbed will be clear of the last program.

Reference: <http://mbed.org/handbook/Downloading-a-program>

Running Your First Program

If you followed the instructions, a single light on your board should now be blinking.