



mc-GW110

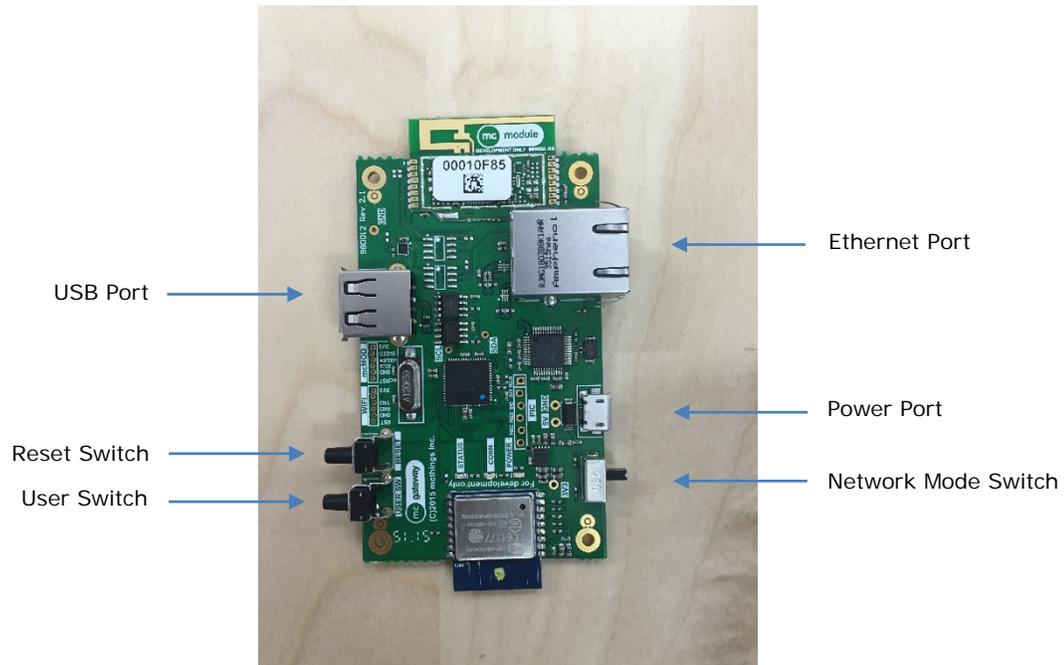
mc-Gateway 110

Revision 1.2 | June 2016

mc-GW110 is a product of mc-Things Inc.



Knowing your mc-Gateway



1. **USB Port:** A USB port used for upgrading your mc-Gateway.
2. **Reset Switch:** A pushbutton used to reset your mc-Gateway.
3. **User Switch:** A pushbutton used for user interactions with your mc-Gateway.
4. **Ethernet Port:** An Ethernet port used to connect your mc-Gateway to the network.
5. **Power Port:** A USB port used only for powering your mc-Gateway.
6. **Network Mode Switch:** A toggle switch used for selecting between Ethernet or Wi-Fi network modes.



Powering up your mc-Gateway

1. Power your mc-Gateway via the USB port. The red LED labeled POWER will turn on. You should also see the green LED labeled STATUS blinking.



2. You can either use Ethernet or Wi-Fi to connect your mc-Gateway to the network. Use the Network Mode toggle switch to choose Wi-Fi or Ethernet mode of operation.



Using Ethernet

1. Ensure the Network Mode toggle switch is in the Ethernet position. This is indicated by “ETH” on the underside of your mc-Gateway.



2. When a network connection is established, the amber LED labeled CONN will turn on.



Using Wi-Fi

1. Ensure the Network Mode toggle switch is in the Wi-Fi position. This is indicated by "WIFI" on the underside of your mc-Gateway.
2. At the moment only WPS is supported as a Wi-Fi connection mechanism.
3. Start the WPS mode on your Wi-Fi router.
4. Hold down the push button labeled USER SW for 1 second and release to start the WPS process.
5. The amber LED labelled CONN will flash while attempting to connect to Wi-Fi
6. When a network connection is established, the amber LED labeled CONN will turn on.



Upgrading your mc-Gateway

The mc-Gateway has two processors, each of which can be independently updated. The two processors are referred to as the Host and the Application processor. Updating the Host uses the same mechanism as updating your mc-module and uses the mc-OTA. Please refer to the mc-OTA documentation for that process.

In order to update the Application processor, follow the steps below:

1. Place the "mcGw110.bin" file obtained from the website on a USB flash drive formatted with a FAT32 filesystem. Make sure to not change the name of the file from "mcGw110.bin".
2. Connect the USB flash drive to the USB port.
3. Either power cycle or reset your mc-Gateway while holding down the "USER SW" and continue to hold down the "USER SW".
4. The bootloader will show a fast blinking pattern using the green "STATUS" LED while it looks to see whether the "USER SW" is pressed or not.
5. The bootloader will confirm that it has seen the "USER SW" pressed by showing 3 or 4 slow blinks using the green "STATUS" LED. At this point you can release the "USER SW".

IMPORTANT

- a. If you see 3 slow blinks you have v0.0 of the bootloader. This version of the bootloader will only accept USB flash drives that consume up to and including 100mA. Note that this is not the actual current consumption of the USB flash drive that you would measure but how much the device tells the Operating System it will use. You need to find a USB flash drive that asks the Operating System for up to and including 100mA. You can use Window's Device Manager or a utility like "Thesycon USB Descriptor Dumper" to look at your USB flash drive's power requirements.
 - b. If you see 4 slow blinks you have v0.1 of the bootloader. This version of the bootloader should work with most USB flash drives as it allows devices that request up to and including 500mA.
6. The green "STATUS" LED will stay on while the bootloader installs the new firmware from the USB flash drive.
 7. Upon successful completion of this process, you should see the regular blinking pattern on the green "STATUS" LED as the device starts to run the application.



