EE 1301: IoT

“Setting up Photon for first use using Node.js command line interface”

Apart from setting up your Photon as described in Lab 1, you can also use an alternate mechanism to set it up on Windows and OS-X. Here is how.

A comprehensive description should be found in Particle’s documentation on Photon under - <https://docs.particle.io/guide/getting-started/connect/photon/>

However, refer to the notes below just in case the link is dead or moved.

*(Note: This has been shamelessly copied from Particle documentation)*

# Configuring your Photon over USB

The easiest way to connect your device to Wi-Fi is using the mobile app as described in the [previous lesson](https://docs.particle.io/guide/getting-started/start). But in case that's not working for you or you don't have an iOS/Android phone, there are other methods as well. For all of the following methods, the device must be in [Listening Mode](https://docs.particle.io/guide/getting-started/modes/photon/#listening-mode), where the RGB LED is blinking blue.

The Core and Photon both boot into listening mode by default, so if your device is brand new, it should go straight into listening mode. If your device is not blinking blue, hold down the SETUP button.

There are a two ways to go about connecting your Photon over USB, depending on your OS.

# Using Windows

To connect and interact with a Particle Device over USB from a Windows machine, the easiest route is to use the Particle command line interface. The following describes how to install the Particle CLI on your computer. If you already have Node.js installed, you can skip to [this step](https://docs.particle.io/guide/getting-started/connect/photon/#installing-the-particle-cli).

## INSTALLING NODE.JS

The Particle CLI runs with Node.js. Grab the latest version from [the Node.js website](http://nodejs.org/download)

If you do not know if you are running 32-bit or 64-bit, checking is easy!

* On Windows 8 Mouse over the upper right hand corner of your screen and navigate to Settings. Then click "PC info" to display basic information about your computer.
* On Windows 7 Open System by clicking the Start button Picture of the Start button, right-clicking Computer, and then clicking Properties. Under System, you can view the system type.

Run the installer you downloaded. Follow the prompts. The default file locations should be fine for this. Restart your computer. (You can do this by mousing over the upper right hand corner of the screen, then going to Settings > Power > Restart)

Node should now be installed! In the next step we will test it and install the CLI.

## INSTALLING THE PARTICLE DRIVER

* You'll also need to install the Windows driver. [Download it here.](https://s3.amazonaws.com/spark-website/Particle.zip)
* Unzip the file. It is fine to unzip this as a default into your Downloads folder.
* Go to the Device Manager and double-click on your Particle device under Other Devices.
* Click Update Driver, and select Browse for driver software on your computer.
* Navigate to your Downloads folder, or wherever you unzipped the drivers. The driver is called photon.cat.

If you have a problem installing, you may have to temporarily disable the digitally signed driver enforcement policy. (We're sorry.) There are good instructions on how to do that [here](http://www.howtogeek.com/167723/how-to-disable-driver-signature-verification-on-64-bit-windows-8.1-so-that-you-can-install-unsigned-drivers/).

## OPENING THE COMMAND PROMPT

You'll need to open the command prompt for this next part. You can also use Powershell or a similar command line tool if that is what you are used to.

To open the command prompt:

1) Mouse over the upper right hand corner of the screen and select "Search"

2) Search for cmd in the search box

3) Click on Command Prompt

Now your Command Prompt, is open for use.

## INSTALLING THE PARTICLE CLI

In the Command Prompt window, type: npm install -g particle-cli and press enter.

Now let's try using the CLI!

## CONNECTING YOUR DEVICE

Make sure your device is plugged in via USB and in [Listening Mode](https://docs.particle.io/guide/getting-started/connect/photon/#connecting-your-device-listening-mode) (blinking blue).

Then type:particle setup

Log in with your Particle account and follow the prompts to set up your device.

If you have already claimed your device and you want to connect it to wifi, type particle serial wifi instead of particle setup. This will set up your device on the current wifi.

Wait! What is an SSID? What kind of security does my wifi have?

* The SSID is the name of your network. When you connect on your computer, it is the name that you select when you connect your computer to wifi.
* The Security of your wifi is often set up by the administrator. Typically this is WPA2 if a password is needed, or unsecured if no password is needed. Contact your network administrator if you can't get this step to work, and find out exactly what kind of wifi you have.

If your device is not connecting, try troubleshooting [here](http://support.particle.io/hc/en-us/articles/204357684-Can-t-Get-Connected-).

More info on the CLI is available [here](https://docs.particle.io/photon/cli).

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# Using OS-X

We're going to install the Particle CLI on your computer. If you already have node.js installed, you can skip to “INSTALL THE PARTICLE CLI” [link to particle website](https://docs.particle.io/guide/getting-started/connect/#install-the-particle-cli).

## INSTALLING NODE.JS

The Particle CLI runs with Node.js. Grab the latest version from [the Node.js website](http://nodejs.org/download)

Launch the installer and follow the instructions to install node.js.

Next, open your terminal, or preferred terminal program.

## INSTALL THE PARTICLE CLI

Type: npm install -g particle-cli

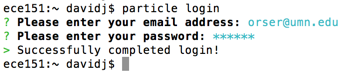
Note: You may need to update xcode at this time.

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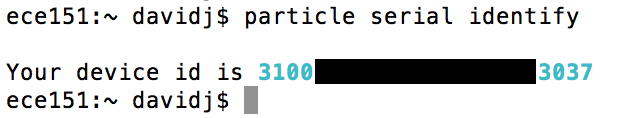
## CONNECTING YOUR DEVICE

Make sure your device is plugged in via USB and in [Listening Mode](https://docs.particle.io/guide/getting-started/connect/photon/#connecting-your-device-listening-mode) (blinking blue). Open the terminal and type: particle setup

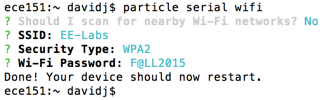
Follow the prompts to log in with your Particle account.



Grab your Photon device ID with the command: particle serial identify



To connect your Photon to a wifi network use the command: particle serial wifi



Wait! What is an SSID? What kind of security does my wifi have?

* The SSID is the name of your network. When you connect on your computer, it is the name that you select when you connect your computer to wifi.
* The Security of your wifi is often set up by the administrator. Typically this is WPA2 if a password is needed, or unsecured if no password is needed. Contact your network administrator if you can't get this step to work, and find out exactly what kind of wifi you have.

If your device is not connecting, try troubleshooting [here](https://docs.particle.io/support).

Once you've finished connecting your device, head over to [the next section](https://docs.particle.io/guide/getting-started/modes) to learn about the different modes for your device.