

SIT210: Embedded Systems Development

Task 1.2P Particle Photon/Argon - Add and remove device to Particle account

Photon and Argon are part of full stack of IoT devices introduced by Particle. The platform allows you to add IoT functionality, in this case, Wi-Fi connectivity, to a range of sensors and actuators.

In this task, we will try out an introductory set-up, to learn the basic concepts of Particle devices. These steps are identical regardless of which Particle device you are using.

Hardware Required

A Particle device (Photon/Argon/Electron/Boron/...)
Micro-USB to USB-A cable
You might need a mobile phone.

Software Required

Web browser IDE

Pre-requisites: You must do the following before this task

Read up on the Particle Guide, for Photon <https://docs.particle.io/quickstart/photon/> and for Argon: <https://docs.particle.io/quickstart/argon/>

Task Objective

In this task you will set up your Particle device and claim it to your Particle account. You are required to add the device to your account before the lab session starts so that you can use it in your later tasks.

Please Note: Particle devices have difficulty connecting to eduroam. Please use Wi-Fi at home, or use your mobile/laptop hotspot for connection.

Steps:

- 1) Create a free Particle account **with you student email address** at: <https://login.particle.io/signup>
- 2) Particle has provided the best set of instruction on how to setup and start using your device (see pre-requisites section above). To avoid reinventing the wheel, please follow that instruction.
- 3) Go to <https://setup.particle.io/> and set up your Particle device.

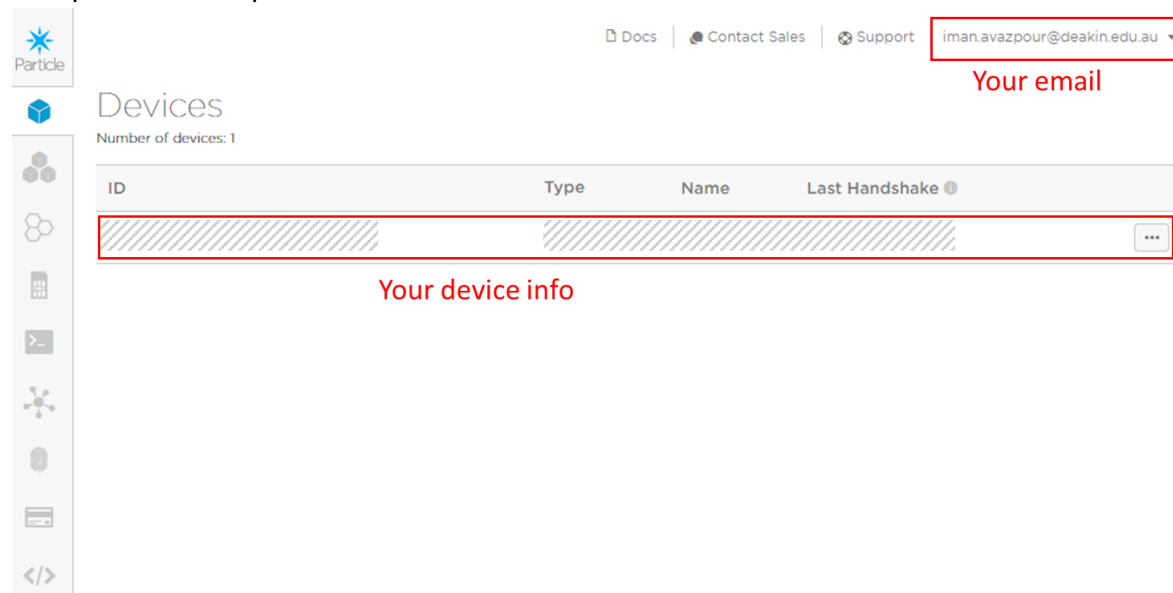
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- a. Please note: If you are going to use your device on campus, your particle device (Photon/Argon/etc.) will not be able to connect to eduroam by default.
 - b. Keep in mind that you might be asked to update the firmware on the software the very first time you connect it to internet, in case you are using your mobile phone as the hotspot.
- 4) Claim your device by following the instructions (see pre-requisites section)
- 5) Once you have successfully claimed and named your device, head to <https://console.particle.io/devices>. Take a screen capture of device list on your particle IDE. Make sure the screen capture includes your student email on top right (see sample below).
- 6) **(Optional)** - Once you have finished with the photon, you can use the following steps to remove the device from your account. Note that if the photon is claimed onto your account, nobody else can flash it or use it in their project. You might decide to keep the photon in your account for the duration of the unit.
 - a. Log on to your photon IDE <https://build.particle.io>
 - b. Click on Device (target icon on the left panel)
 - c. Select the device associated to the Photon you want intend to remove.
 - d. Click the delete (Unclaim) icon.

Task Submission Details

Create an empty Word document. Insert the device list screen capture you created on step 5. Make sure your student email is visible. Save the document and print it into PDF. Submit your PDF as the confirmation of claiming your device.

Sample Screen capture:



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Troubleshoot

If you cannot set up the Photon, check out the troubleshooting here:

<https://docs.particle.io/support/troubleshooting/common-issues/photon/>

Most common issue is the firmware is not updated on the Photon.

Similar troubleshooting guides/documents are available for other devices on Particle website.

Remember, anytime you submit a task to OnTrack, it is a good practice to check the status of any existing tasks, and the future tasks you are expected to complete. If you have got feedback on previous tasks, you may need to fix and resubmit some of your work. You want to check out why, so that you can learn from this and make it faster and easier to accomplish later work to the required standard.