Lab2b:
writing data to the flash

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Flash

While one of the primary purpose of IoT is to collect and exchange data over an inter-connected network, it is as well important to be able to persist information in the IoT device itself: log files of device's activity, etc.

This is especially useful when network connection is not reliable.

Flash

The LoPy folder tree is the following:

/ (root)

/flash

main.py

boot.py

/lib

/cert

/sys

/sd (if mounted)

Flash

By default, when you sync main.py, boot.py, ... from your Atom project, these files are written into the **flash** folder.

Let's explore and navigate the folder structure interactively. Connect to a Lopy via the REPL and import the basic operating system module (os):

```
import os
```

Flash

Once imported:

to know you current working directory: os.getcwd() (most probably the /flash folder);

to list folders and files in your current working directory: os.listdir()

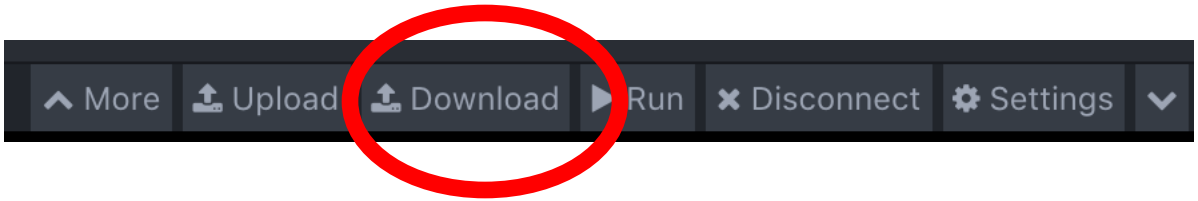
to create a new folder/directory named "log": os.mkdir('log')

Flash example

In Code/flash you will find an example of code that writes and reads a file. It also creates a directory if it does not exist.

Flash: downloading files

Similar to how you upload files to the LoPy, you can download files from the LoPy to your PC using Atom.

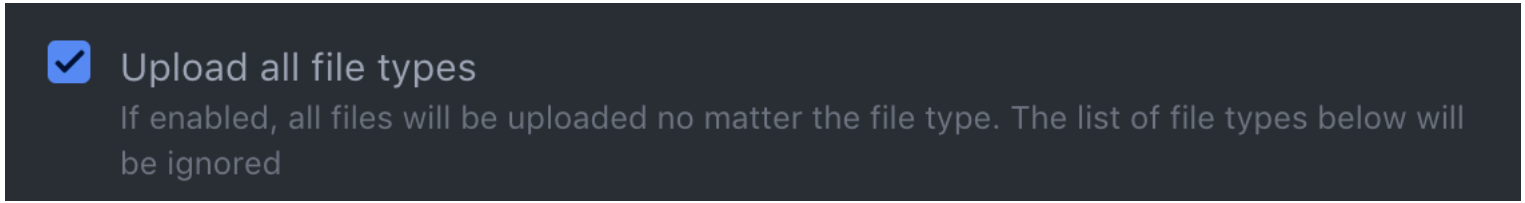


The downloaded files will appear in your Project folder.

Flash: downloading files

To be able to download files, you must have this option selected:

Settings → Global Settings



Flash: Exercises

1) Write a code that creates a file named "log.csv" in /flash/log/ folder that saves the time value every 10 seconds and the temperature value, separated by a comma

2) If you save “time, temperature” every 5 minutes, how many readings can I store in the /flash? After how much time will the /flash be full?

Feedback?

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