Unit 2 Lab 3
Learning Targets

Essential Questions

- How does Python access data files?
- What are file objects?
- What are the different modes to write data?

Key takeaways

- File objects are created with the open() function.
- File handling is typically a three step process:
    - Open the file - create the file object
    - Read/Write - From/To with the file object
    - Close the file - Discard the file object
- read(), readline(), readlines() are common read methods
- write(), writelines() are common write methods
- You do not need to import a module to create a file object.

Teaching Tips

Lab 3 is a stepping stone to storing IoT data in the future. Students will learn to easily create and use data files.

Files are accessed as objects. We use methods to read and write data. In Lab 3 we are not using a turtle.Turtle() object but are instead using a file object.

Highlight the difference between append mode and write mode. Write mode will delete the contents of a file, which may be what is desired. Sometimes just appending to the end of the file is what is needed. A slip up of one character "w" vs "a" could wipe out a data file.