Settings App Design

### **Classes:**

* Creating a settings list
* Changing settings within a settings list
* Creating a relay group list (list of each relay/txt file name and their corresponding settings list)
  + This is a class of settings lists
* For Parsing text files into these settings lists0
* IMPORTANT: find a way to determine what different word bits mean, i.e. when we discussed that some settings have values for each individual phase, and some just stick to the 3-phase equivalent value
* **LATER:** class for determining PHROT and changing settings accordingly

### **Order:**

* Parsing the txt files
  + This needs to separate the information in a txt file based on its contents into the settings list
    - This function/class will be called upon from within the settings list class below
  + The first few lines that include non-setting information such as the part number need to be excluded, need to make sure the format of fetching the settings is word bit, value
    - If the line being read from the txt file is not in this format, a try catch statement will ensure that these strings are not stored and that the program continues to run
  + Separate the settings into word bit and the value associated with that word bit. Find the comma (“,”) in the string in order to successfully separate the two
* Create the settings class
  + This needs to hold information such as the word bit and its currently assigned settings value; if this is a word bit that needs to be calculated, cases may need to be made in order to ensure this
  + This calls upon the parsing function/class
* Create settings list
  + Receive input of txt files, create a settings list for each
  + **FIRST:** use one text file as a test, make sure it parses and stores correctly in a settings list
  + **SECOND:** determine what elements you want to change to what values, keep track of the change and store the index of the item that you changed in a separate array
  + **THIRD**: Go back into the settings list, make necessary changes by using the changed settings array (the one full of the changed indices) in order to be more time and memory efficient
  + **FOURTH:** Copy this new list back into the original txt file, including the changes, and put it back in the format it was originally in
* The Relay Group List will call upon the settings list class
  + This class is created as more of an overarching class for settings list. The purpose of this class is to create a list of lists, or List<List<settings>>. This is called the relay group
  + **FIRST:** create a new relay group list, storing the name of the txt file into the first index of the list
    - This prevents us from needing to store the name of the txt file every time, only need to store it one in order to determine what txt file the specific settings come from à makes editing files and updating them much easier/efficient
  + **SECOND:** Make sure this is organized correctly; this is a list of each txt files elements, but the list of settings for those respective txt files is created in the above class
    - Ensure that each element of this list contains the right list of settings; this is a list of lists of objects (the settings)
* After all the above are completed, PHROT will be added into consideration, and settings will be altered accordingly