E36312A GUI

IMPORTANT: When running GUI, power source settings are RESET to DEFAULT SETTINGS. GUI currently does not support output channels being in series or parallel.

GUI Diagram

Output Channels

Heading	Description
Preset Voltage	Displays the voltage to which it has been set
Preset Current	Displays the current limit to which it has been set
Channel On/Off	Toggles each individual channel

Change Preset Voltage	Changes the preset voltage for each channel
Change Preset Current	Changes the preset current limit for each channel
All On/Off	Toggles all channels

Terminal

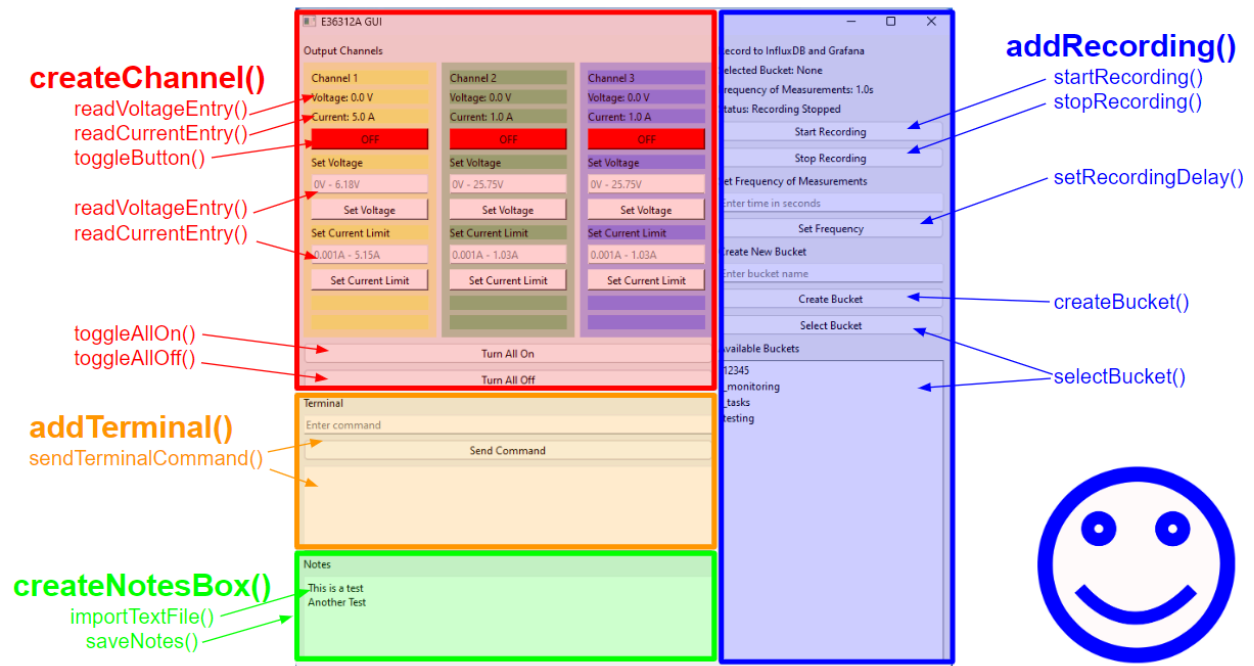| Heading	Description
Command Input	Users can enter commands not covered by the GUI
Command Output	The result of the command input is displayed here

Notes

Heading	Description
Text Box	Users can type notes about miscellaneous commands or observations. These notes are autosaved to a text file.

Data Record

Heading	Description

Recorder Settings	Displays the bucket that will store the data, the frequency of measurements and whether the program is currently recording.
Start/Stop Data Recording	Toggles whether the data is saved and uploaded to the database. Recorder only records data for channels that are ON.
Set frequency of measurements recorded	Sets the delay between each measurement taken by the program. 2 seconds is the lowest due to the execution time of the code.
Create new bucket	Creates a new bucket in InfluxDB that can be written to
Select from available buckets	Displays all available buckets that can be written to by the program

Programming Diagram

createChannel()
- readVoltageEntry()
- readCurrentEntry()
- toggleButton()
- readVoltageEntry()
- readCurrentEntry()
- toggleAllOn()
- toggleAllOff()

addTerminal()
- sendTerminalCommand()

createNotesBox()
- importTextFile()
- saveNotes()

addRecording()
- startRecording()
- stopRecording()
- setRecordingDelay()
- createBucket()
- selectBucket()

Corresponds to Python code