All commands are white space delimited and end with \r

Incorrect or missing arguments result in no action (command is ignored)

FAILED/NYI

rsp = dev.get\_device\_id()

Failed -getDeviceId

dev.get\_volt()

**getVersion**

Returns string of format: Version: YYYY\_MM\_DD\_char

Example return: Version: 2021\_03\_01\_A

dev.get\_firmware\_version()

tested OK

**getVariant**

Returns string of format: Variant: string

Example return: Variant: ECL Measurement Device 1

dev.get\_hardware\_variant()

tested OK

**getCell**

Returns string: On or Off

Example return: On

dev.get\_cell()

tested OK

**setCell**

Input: On or Off

Returns: Cell On or Cell Off

Example command: setCell On

Example return: Cell On

dev.set\_cell('On')

tested OK

dev.set\_cell('Off')

tested OK

**getFeedback**

Returns string: Voltage or Current

Example return: Voltage

dev.get\_feedback()

tested

**setFeedback**

Input: Voltage or Current

Returns: Feedback Voltage or Feedback Current

Example command: setMode Voltage

Example return: Feedback Voltage

dev.set\_feedback(f)

tested OK

**setVolt**

Input: x.xxx (float, voltage(V))

Returns: x.xxx (applied voltage, rounded)

Example command: setVolt 1.538

Example return: 1.539

dev.set\_volt(V)

tested OK

**setMeasure**

Input: string (IP, IV, PV)

Retruns: Measure (type,type)

Example command: setMeasure IP

Example return: Measure (Current,Photo)

dev.set\_measure(m)

**setSamples**

Input: n

Returns: Samples: n

Example command: setSamples 10

Example return: Samples: 10

dev.set\_samples(samples)

tested OK

**setGain**

Input: n

Returns: Gain n (gain value)

Example command: setGain 0

Example return: Gain 0 (1.001e-4)

dev.set\_gain(g)

**getGain**

Returns string: Gain n (gain value)

Example return: Gain 0 (1.001e-4)

dev.get\_gain()

**setHV**

Input: xxx.x (float, voltage(V))

Returns: xxx.x (applied voltage, rounded)

Example command: setVolt 301.0

Example return: 301.1

dev.set\_HV(v)

**getHV**

Returns string: voltage

Example return: 301.1

dev.get\_HV()

**getHVenable**

Returns string: On or Off

Example return: On

dev.get\_HVEnable()

tested OK

**setHVenable**

Input: On or Off

Returns: HV On or HV Off

Example command: setHV On

Example return: HV On

dev.set\_HVEnable('On')

tested OK

dev.set\_HVEnable('Off')

tested OK

**setVstart**

Input: x.xxx (float, voltage(V))

Returns: x.xxx (start voltage, rounded)

Example command: setVolt 1.538

Example return: 1.539

dev.set\_VStart(1.539)

tested OK

**getVstart**

Returns: x.xxx (start voltage, rounded)

Example return: 1.539

dev.get\_VStart()

tested OK

**setVend**

Input: x.xxx (float, voltage(V))

Returns: x.xxx (end voltage, rounded)

Example command: setVolt 1.538

Example return: 1.539

dev.set\_VEnd(Vf)

tested OK

**getVend**

Returns: x.xxx (start voltage, rounded)

Example return: 1.539

dev.get\_VEnd()

tested OK

**setScanrate**

Input: x.xxxey (float, rate V/s)

Returns: x.xxxey (scan rate)

Example command: setRate 100e-3

Example return: 1.000e-1

dev.set\_ScanRate(rate)

tested OK

**getScanrate**

Returns: x.xxxey (scan rate)

Example return: 1.000e-1

dev.set\_ScanRate()

tested OK

**stopTest**

Returns: Stop OK

dev.stop\_test()

tested OK

**runTest**

(no arguments)

Returns: Run OK (followed by data)

(CV)

Returns: data

**An example of running a CV experiment:**

setVstart 0.0

setVend 0.6

setScanRate 0.1

setGain 1

setHV 450.0

setMeasure IP (default) or setMeasure IV (for testing with a 100k resistor)

runTest CV

For test connect WE to one end of the resistor and the CE and RE to the other end of the resistor.

With the lid a little bit open the photo current at 450V should be ~1uA. The maximum normal PMT current is 5uA.