**Transcript**

To the left you can see the battery being charged by the PV panels. The clicking sounds are the relays on the battery boards switching as cell voltages are measured.

To the right is a time-lapse of the power tracking algorithm showing the maximum permissible power draw and its effect on the charging current. The spikes every 60 seconds is the power tracking algorithm testing for higher power points.

To communicate SOC and SOH data to Command the SMPS Arduino is connected to a computer. On the computer a Python script is run which reads in USB serial data and transmits it to Command via a TCP connection.

Due to cloudy weather the PV panels could not always provide enough power to charge the battery at the standard charging current.

Every message sent is prefixed with a message ID, which is used by command to decode what data is being sent.