SunS hardware and software architecture

Virtual layer

Numerical algorithm ↔ Virtual SunS ↔ **I2C software driver** ↔ I²C ↔ System bus

Virtual flash memory

Virtual light sensors

Virtual on-board thermometer

Software driver layer

SST25VF032B-80-4I-QAE software driver — **SPI software driver**

M25P16-VME6G software driver — **SPI software driver**

TSL2561T digital light sensors software driver — **Port software driver** / **UART software driver** / **ADC software driver**

Solar panels software driver

LM60 software driver — **ADC software driver**

Hardware layer

SPI

SST25VF032B-80-4I-QAE flash memory x2 (Farnell: 1829954)

M25P16-VME6G flash memory x2 (Farnell: 1099664)

Heater's MOSFET driver

UART

UART to I²C bridge

RC filter

LM60 sensor

I²C

Digital version

Heater

TSL2561T light sensors (Farnell: 1226888)

MCP9800 temperature sensors

16-bit analog to digital converter

RC filter

Current sensor

RC filter

Analog version

Solar panels

LM60 sensor

Only analog version

Only digital version

Digital and analog version