

Application Layer (FreeRTOS tasks)

Startup

Read sensors

Param Server

Heartbeat

MPPT

Watchdog Reset

System Reset

Heater Controller

Time Control

Devices layer (Drivers abstraction)

Current Sensor

Voltage Sensor

Temperature Sensor

Power Converters

OBDH

MPPT

Leds

Media

Watchdog

Battery Monitor

Heater

TTC

Drivers layer

DS277Xg

ADS1248

WDT

ADC

SPI

I²C

TCA4311A

TPS54x0

MAX9934

PWM

Flash

GPIO

UART

I²C slave

Hardware Abstraction Layer
(MSP Driver Library)

System

Hardware