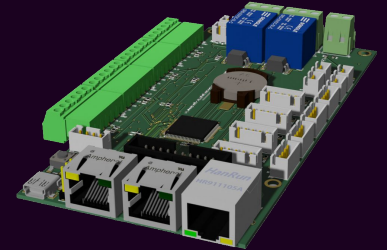
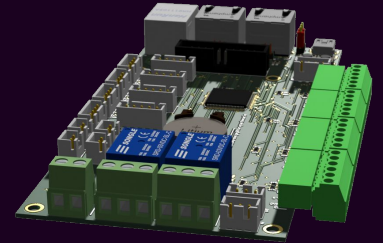
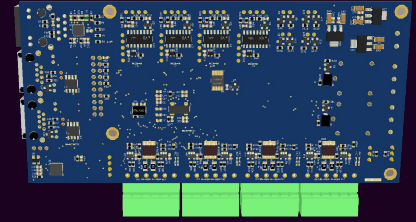
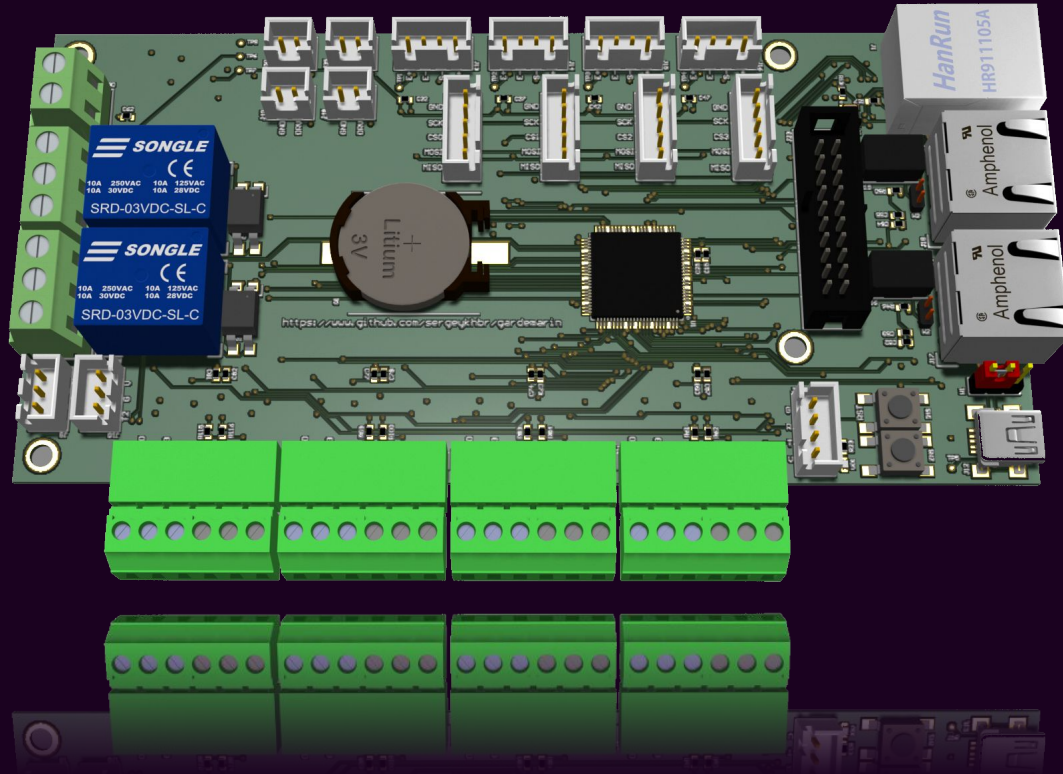
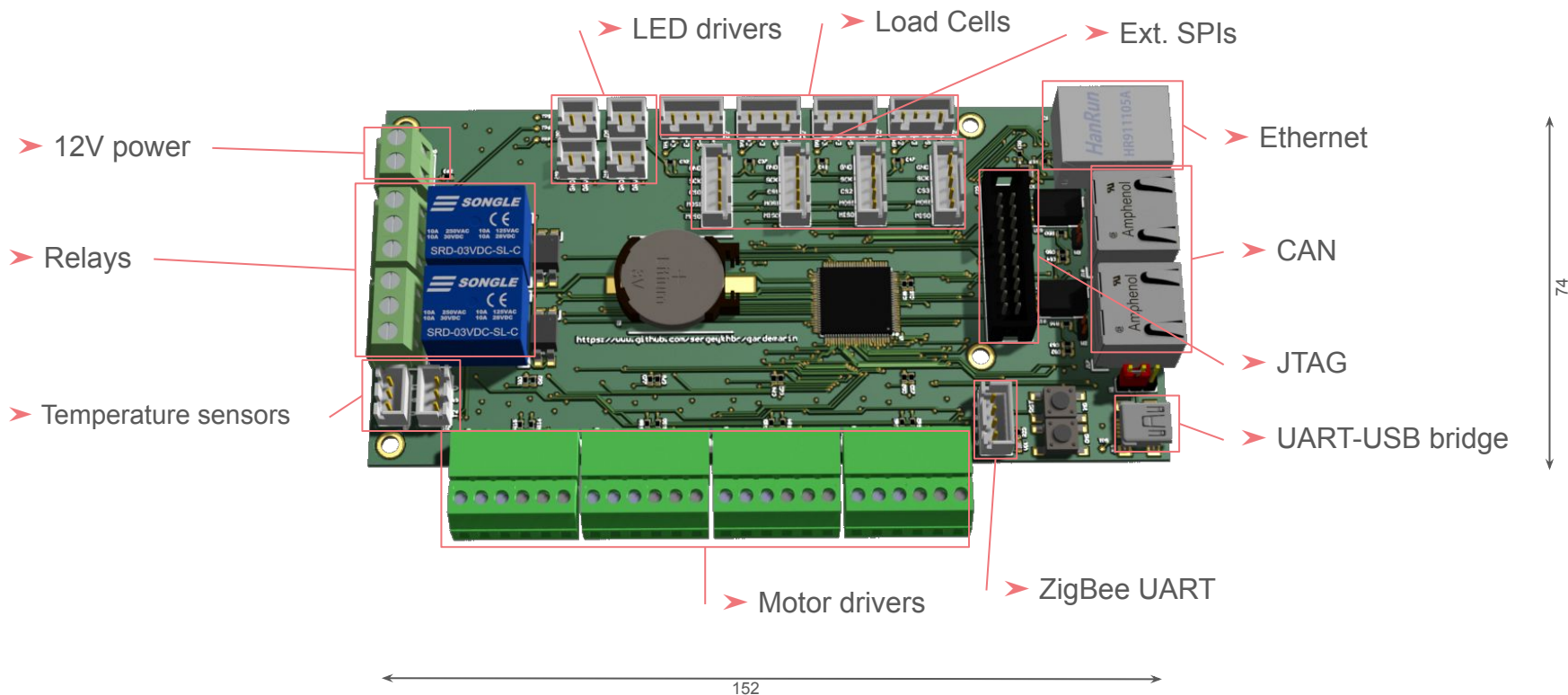


STM32 Gardemarin, ARM M4F, 168 MHz



Top View



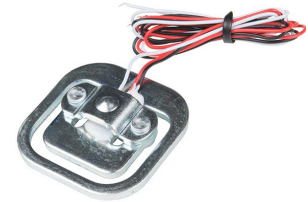
Motor Drivers

- 4 x Dual H-bridges a Switches provide 4 options:
 - 4 x Stepper motors
 - or 8 x DC motors or solenoids
 - or 4 x DC motors with encoders
 - or mixed configuration
- 8 x Current shunt sensors with 610 μA per ADC bit



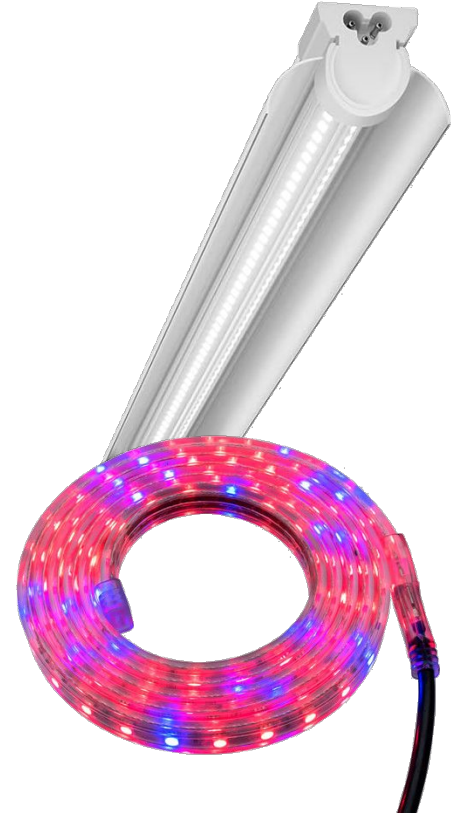
Load Cells / Weight sensors

- 4 x Precision 24-bit A/D converter designed specifically for the load cell (weight sensors):
 - Weight measurements 0 to 500g, 0 to 10kg, 0 to 50kg and even 0 to 800kg.
 - Force gauge to measure force in newtons
- Alternative is 4x SPI interfaces (or mixed config.)



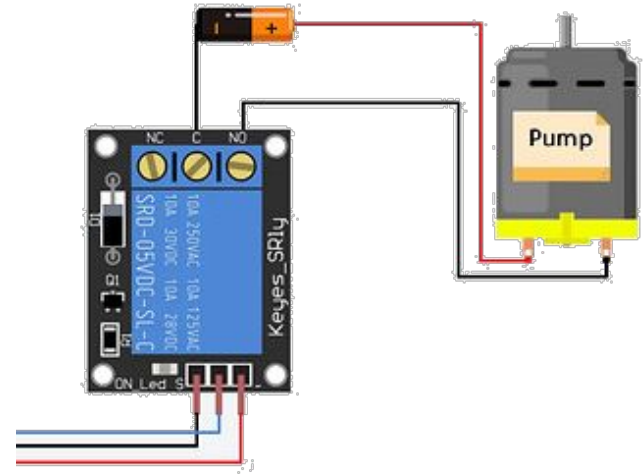
LED drivers

- 4 x Independent LED drivers 12V, 3A each
 - Direct LED strips connection
 - Can be used either as additional DC driver



Relays

- 2 x Relays 220V, 10A each
 - External pump/compressor power on/off
 - Power cycle control



External modules

- Dedicated UART for ZigBee module
- 2 x Temperature sensors DS18B20

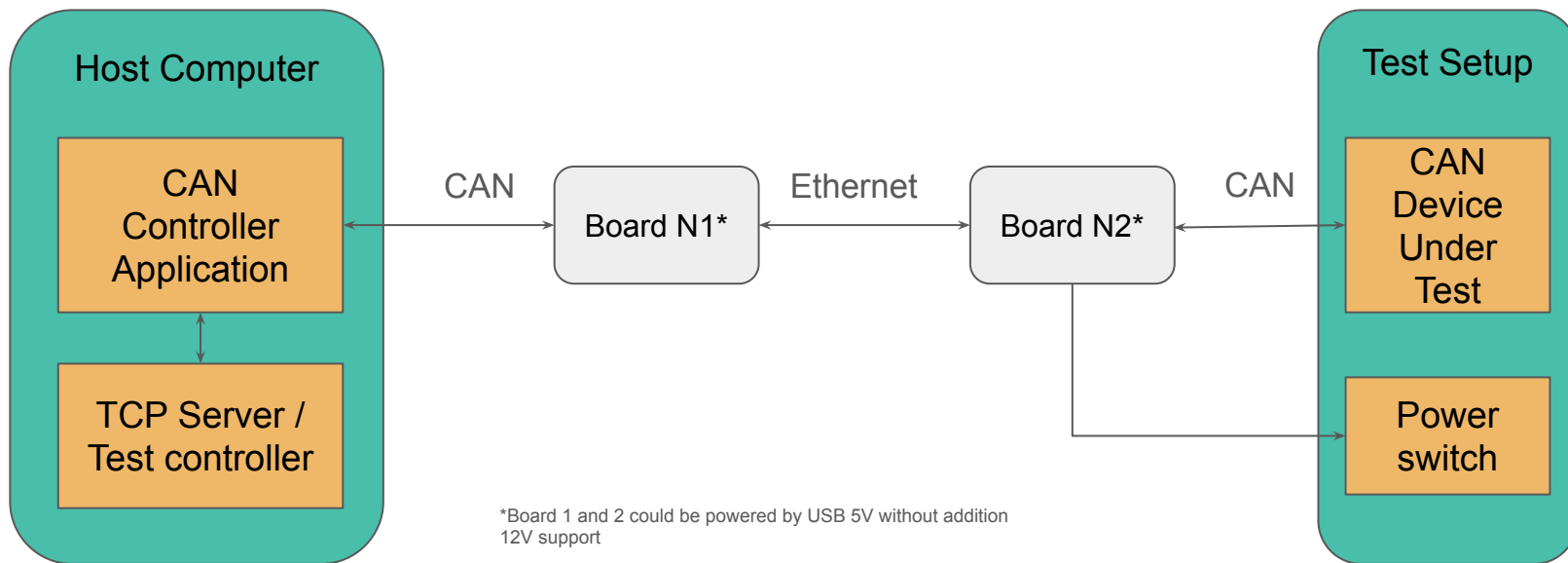


Communication

- JTAG/SWD debug interface
- UART over USB
- Ethernet 10/100
- 2 x CAN interfaces up to 1 Mb/s
- 4 SPI interfaces
- 3.3V GPIOs
- Dedicated UART for ZigBee module

Application

➤ CAN over Ethernet with the Power control.



Other applications

- Automatic plant farm
- Animal feeders
- Drink/cocktail machine
- Bee Hive monitor
- Smart home moving parts controller