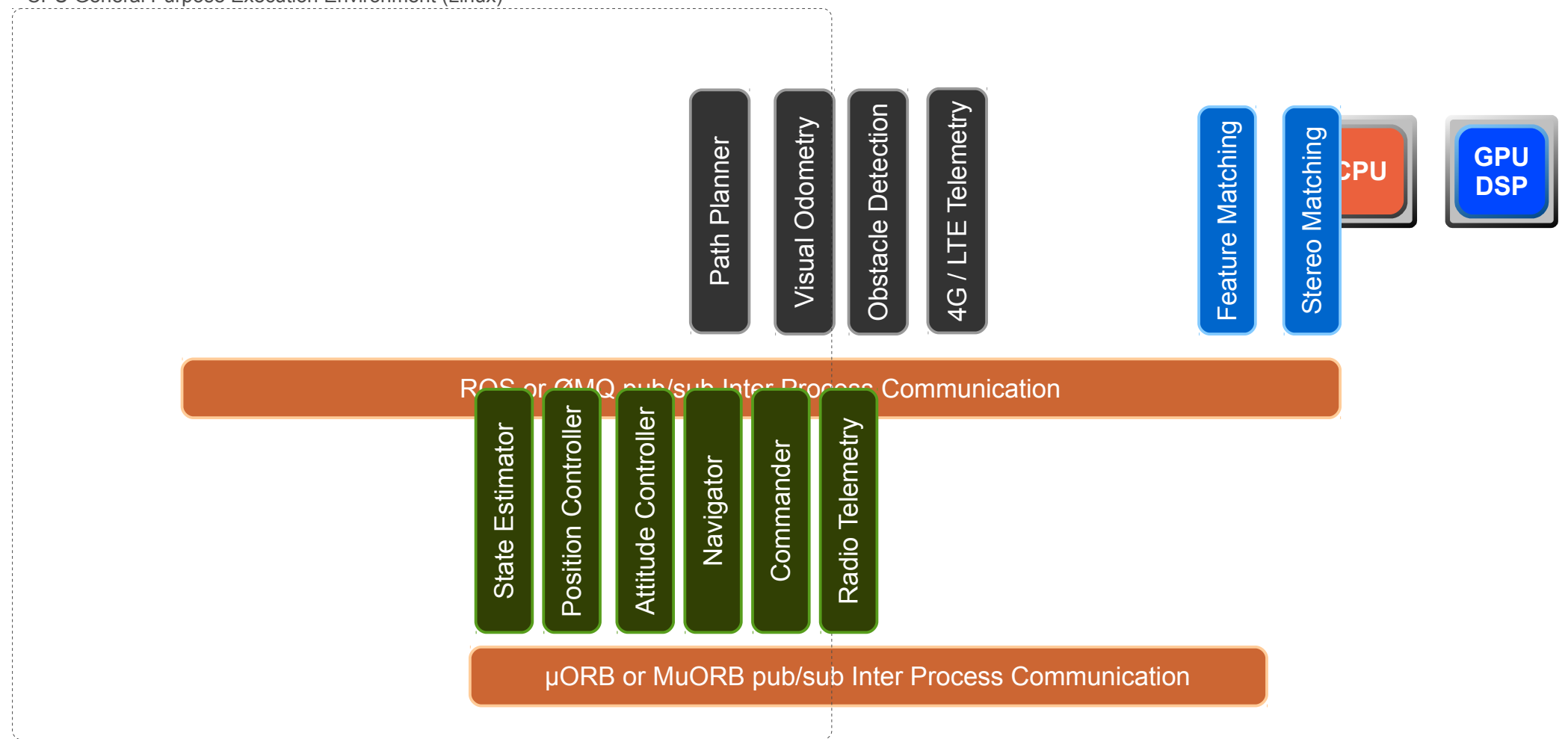
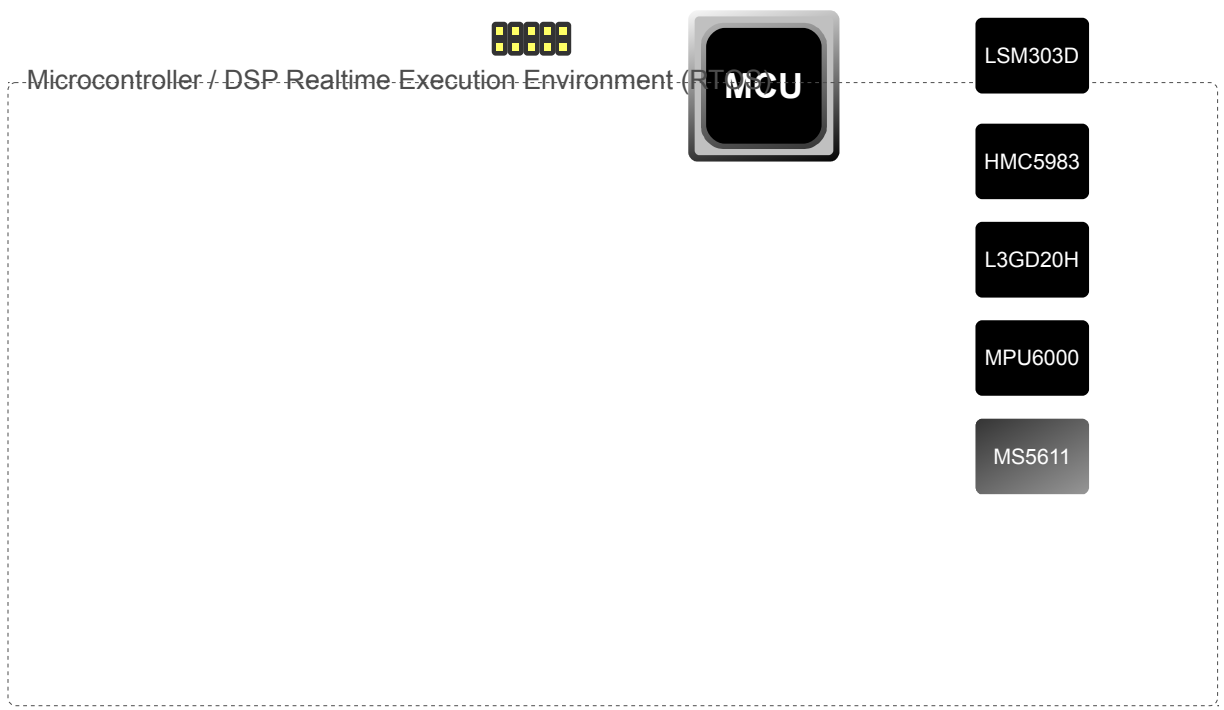
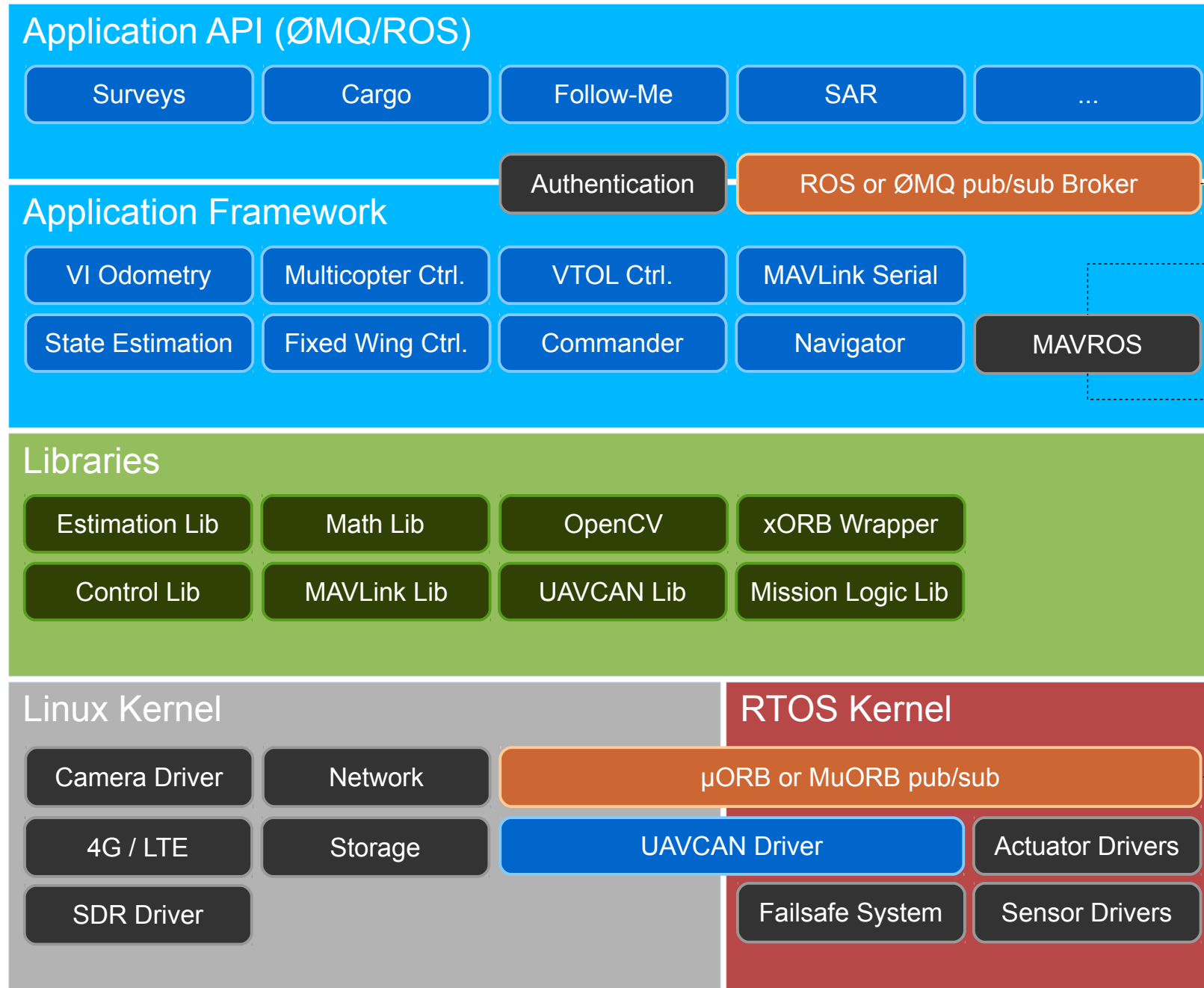


CPU General Purpose Execution Environment (Linux)

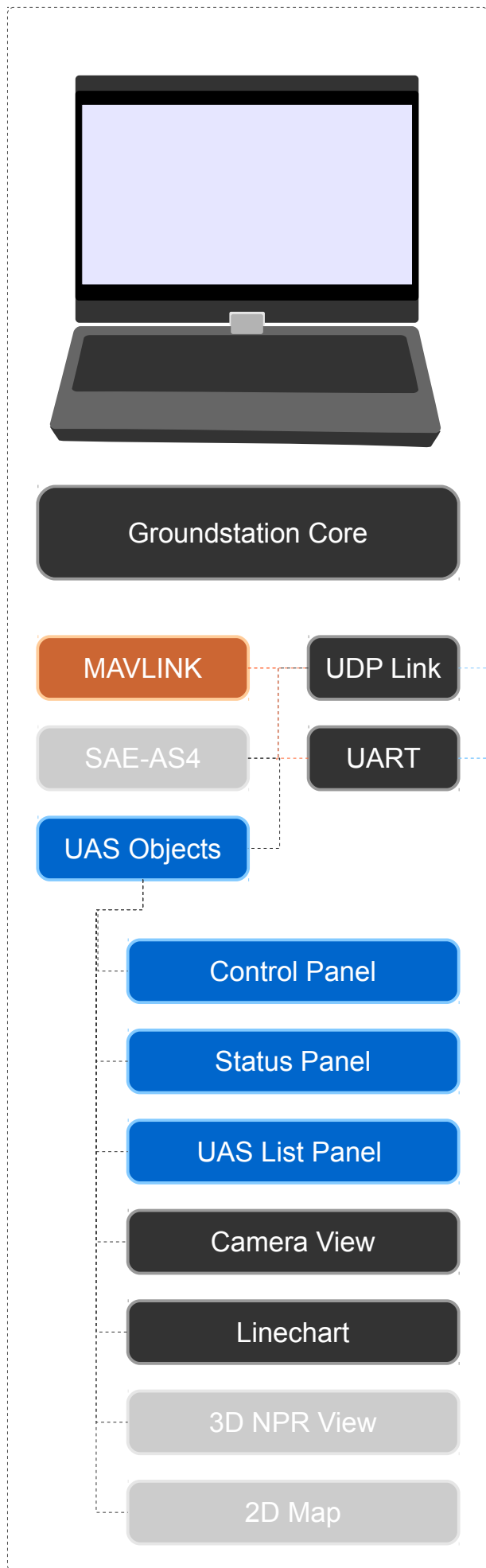


Microcontroller / DSP Realtime Execution Environment (RTOS)

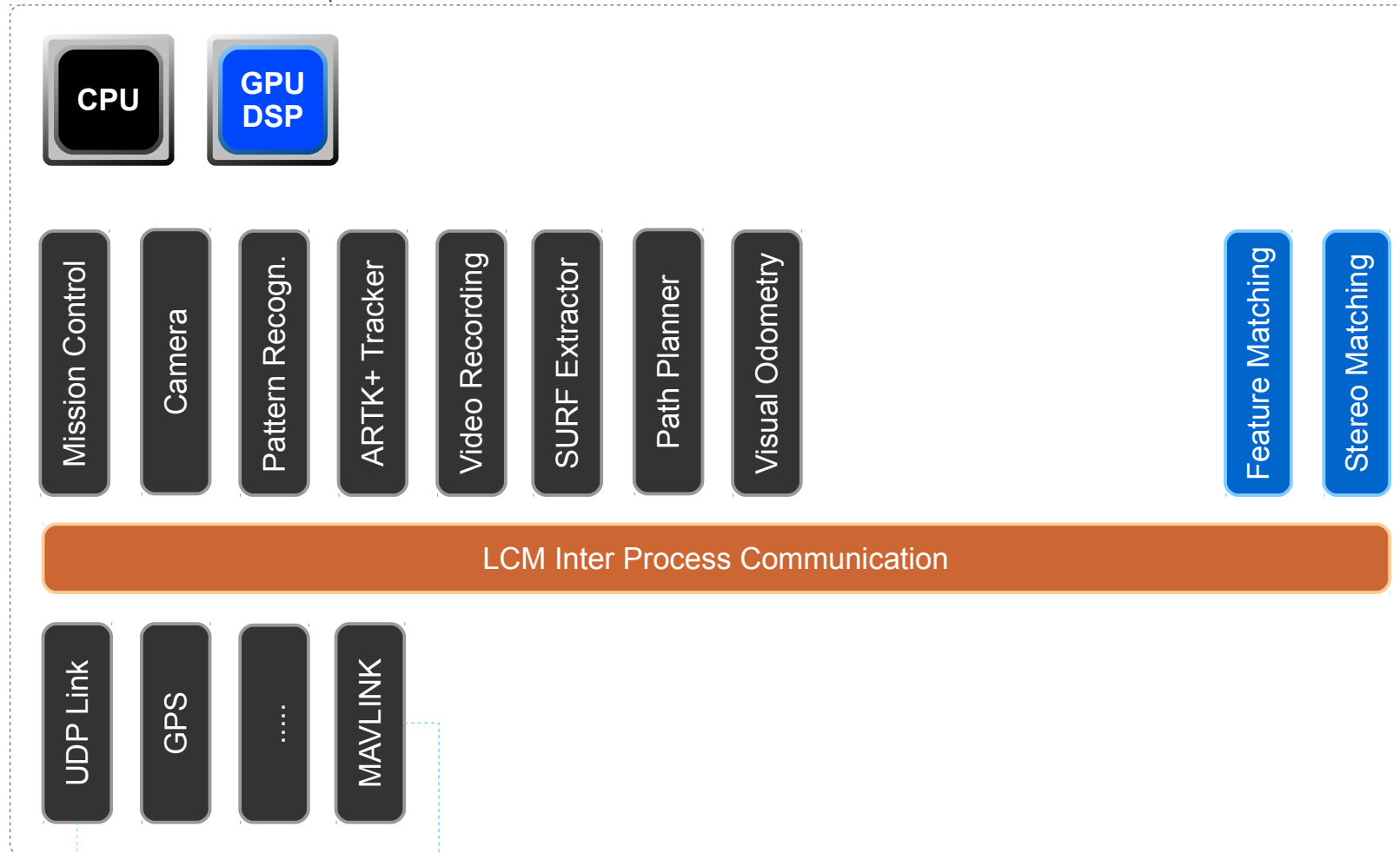




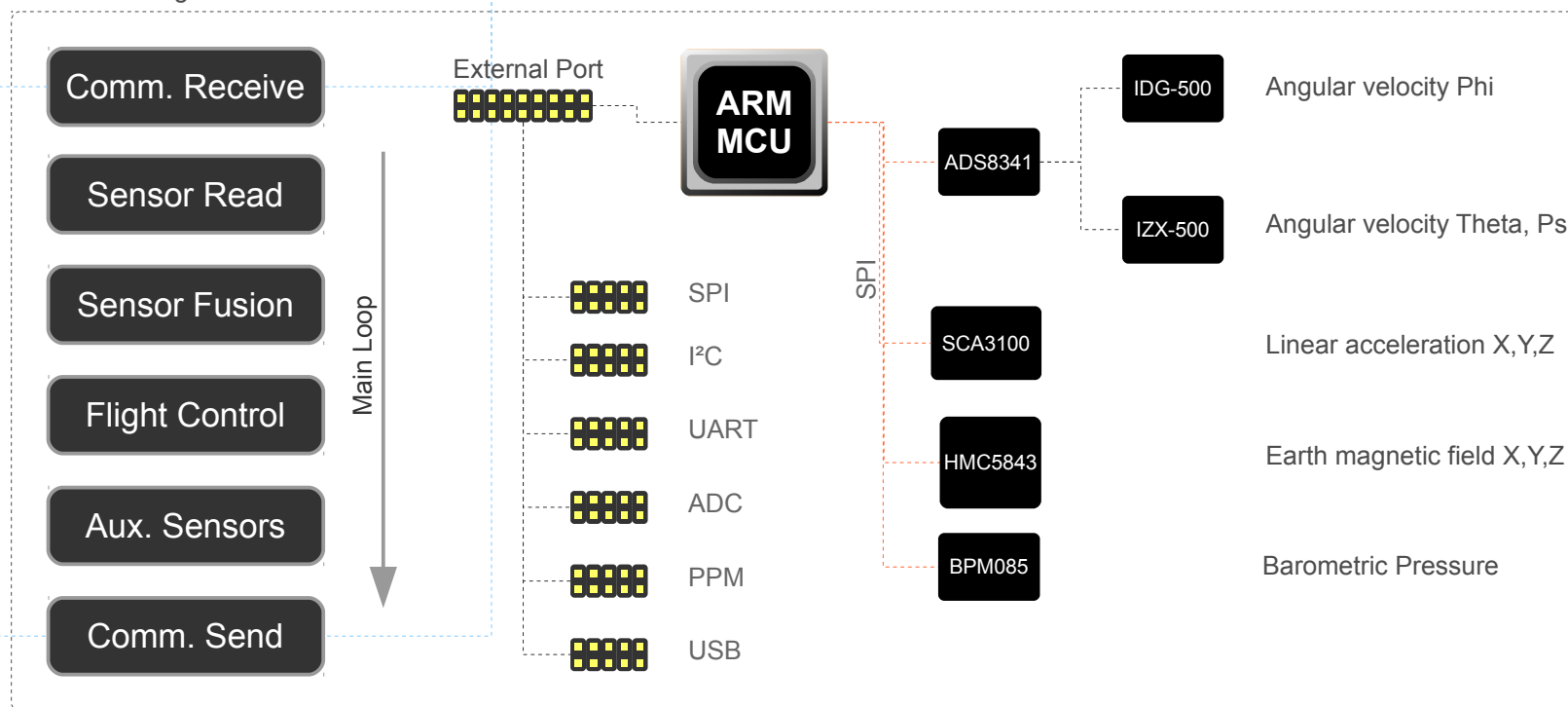
Groundstation on Tablet PC



Gumstix Overo Fire / COMExpress board



PIXHAWK flight board

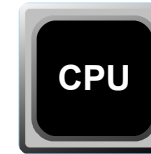
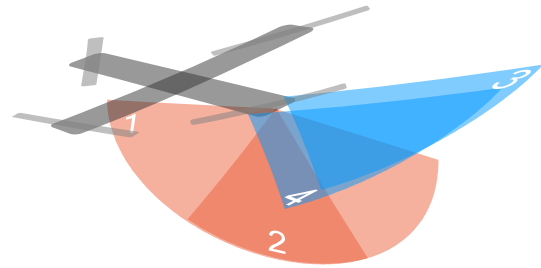


MAVLINK/SAE-AS4
over Wifi

MAVLINK
ZigBee

MAVLINK
UART

Main Loop



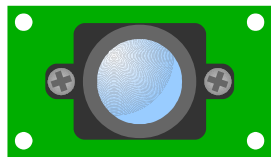
Camera 1
5-point
180°



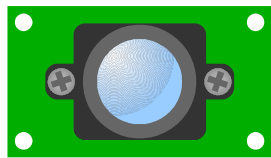
Camera 2
5-point scale
60° / 4.0 mm



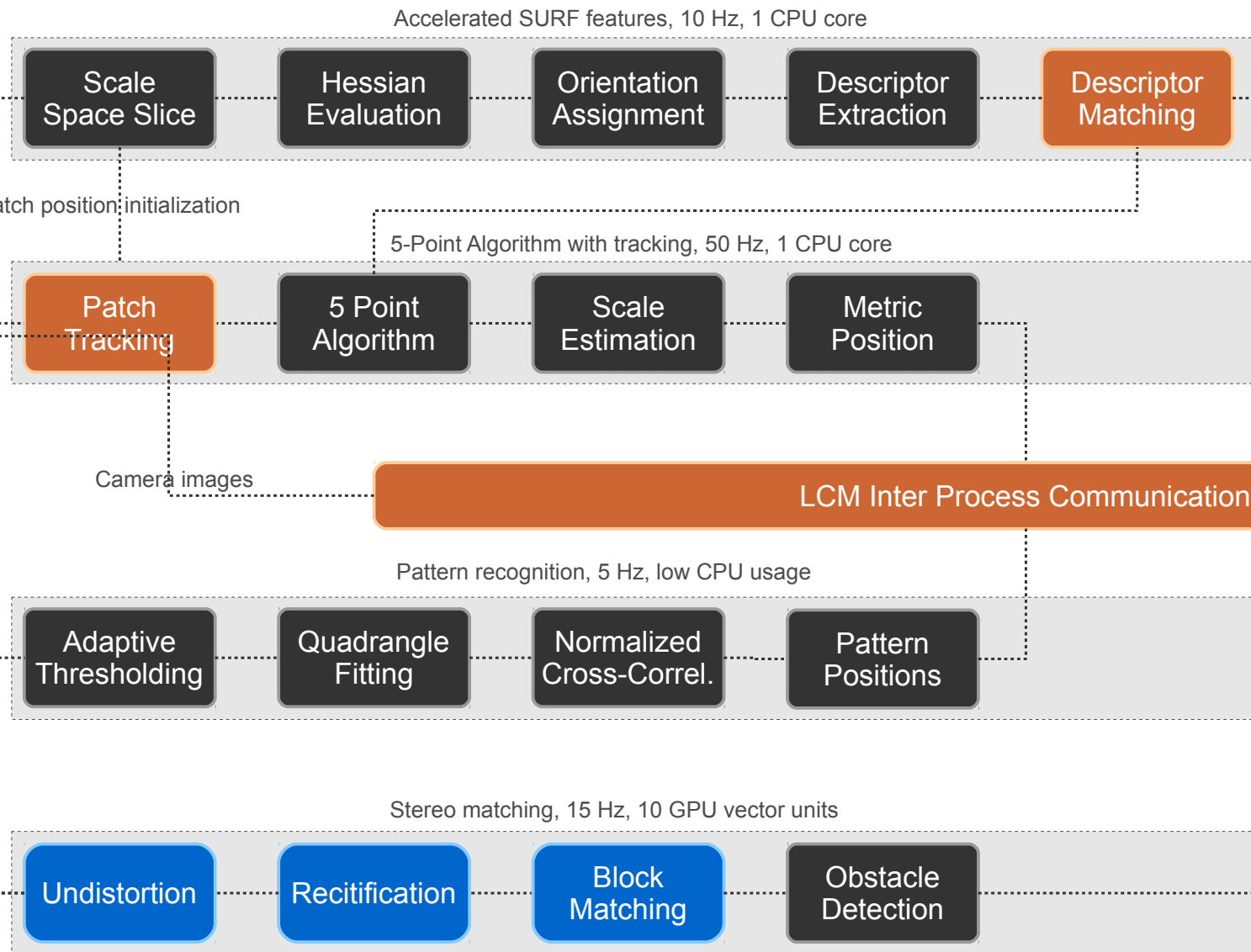
Camera 3
Stereo left
60° / 4.0 mm



Camera 4
Stereo right
60° / 4.0 mm



LCM Camera Hub



Matched features

State Estimator

FastSLAM

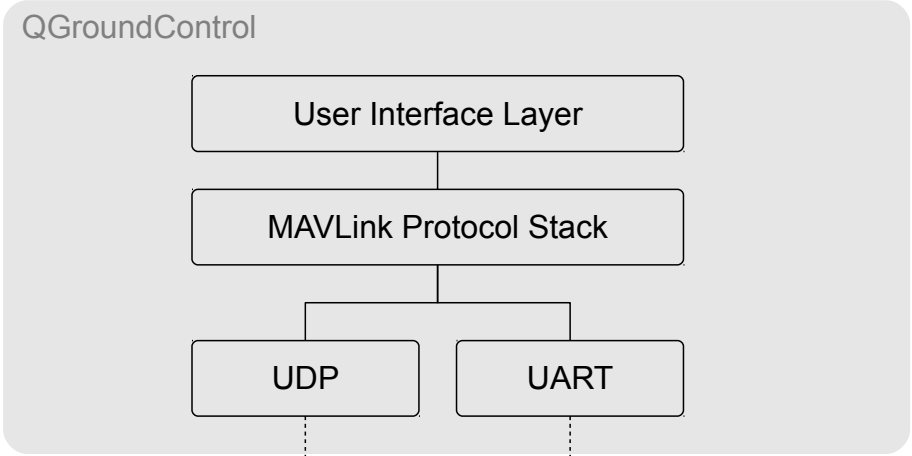
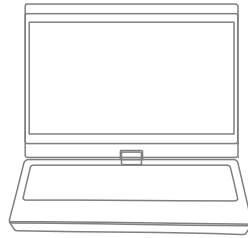
Position Controller

RRD Path Planner

Motor Interface

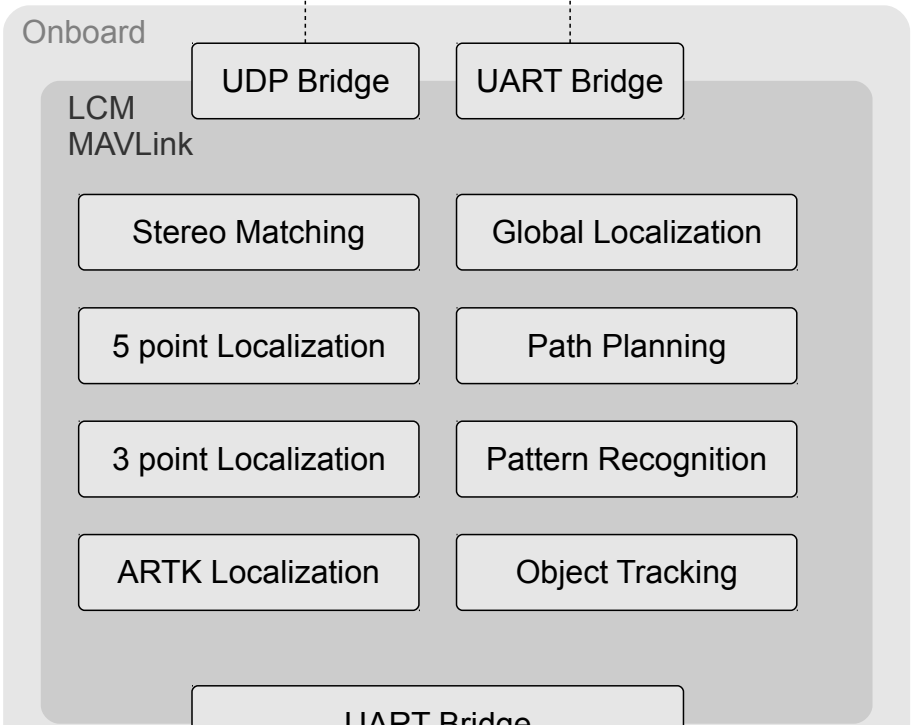
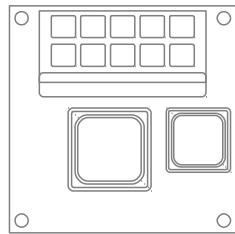
Obstacles

Ground Control Station

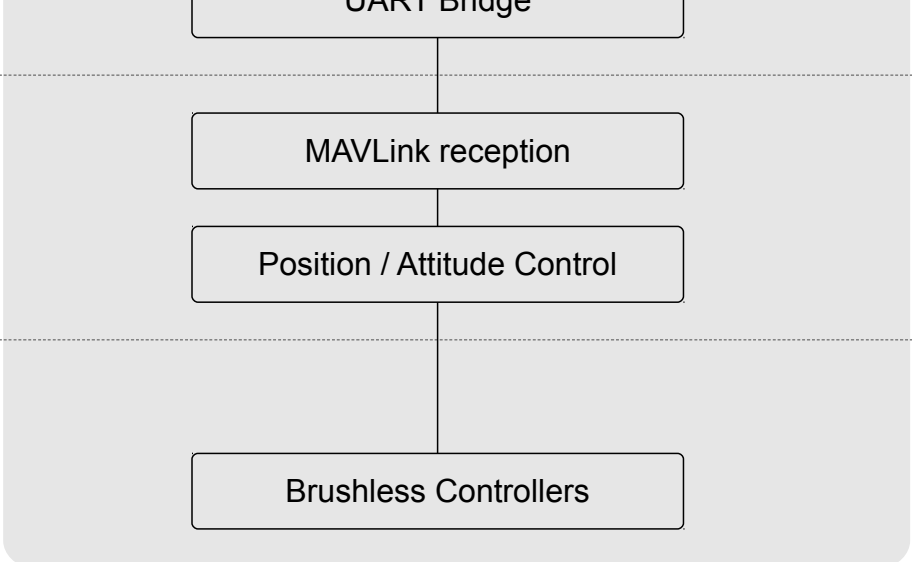
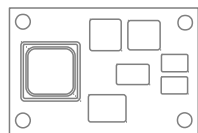


MAVLink

Computer Vision System



Autopilot



Motor Control

