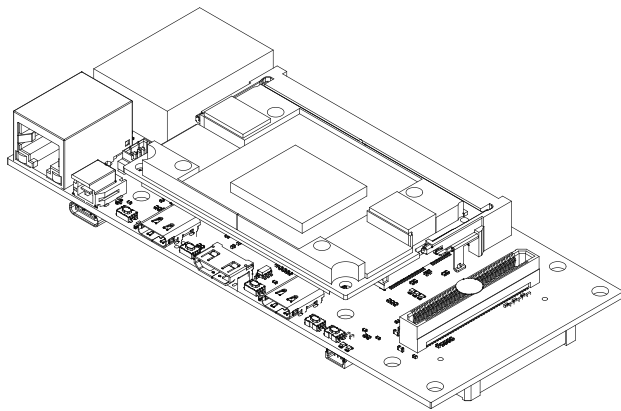


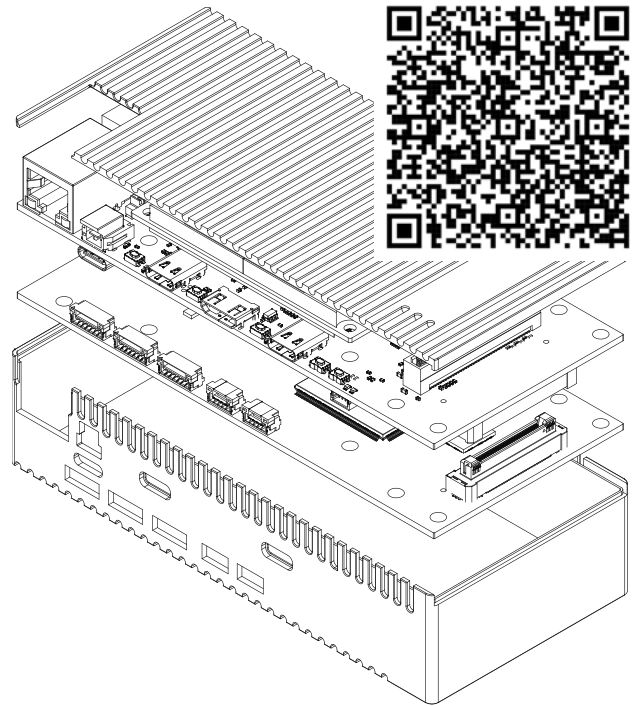
Aleph is flight computer that combines a Nvidia Orin SOM (not included) and a STM32H757. It is designed as an open development platform that allows users to run Elodin's customizable flight software, PX4, or something homegrown.

Aleph features two boards connected via a Samtech ERF5-050 board to board connector. The "carrier board" – the upper level board – connects to the Orin NX module. The expansion board features the STM32H757, and a variety of sensors.



Carrier Board

- M.2 M KEY - PCIE X4
- M.2 E KEY - PCIE X1 + USB 2, I2C, UART
- USB C SERIAL DEBUG PORT WITH PD
- USB C 10 GBPS WITH USB PD AND DP
- USB C 10 GBPS
- GIGE WITH POE
- MIPI CSI-2 INTERFACE
- SAMTECH ERF5-050 — EXPANSION CONNECTOR
 - PCIE X2 • 2x I2C • CAN
 - USB 2 • 2x SPI • UART
- COMPATIBLE WITH NVIDIA JETSON ORIN SOM
 - NANO 4GB MODULE (20 TOPS)
 - NANO 8GB MODULE (40 TOPS)
 - NX 8GB MODULE (70 TOPS)
 - NX 16GB MODULE (100 TOPS)



Expansion Board

- 2X JST-GH 10 PIN ESC / PWM
 - 5V / 8X PWM / GND
- 2X JST-GH 4 PIN CAN
 - 5V / CAN-H / CAN-L / GND
- 2X JST-GH 6 PIN UART + I2C AKA GPS
- 1X JST-GH 6 PIN RC
- 1X GPIO JST-10 PIN
- 1X USB C DEBUG PORT
 - RP2040-BASED DEBUGGER FOR STMH7'
- BMP581 BAROMETER
- 3X BMI270 IMU
- BMM350 MAGNOTOMETER

ELODIN

Flight software, the code that allows a drone to fly, is notoriously hard to develop.

The emergence of open-source but hard-to-modify solutions like PX4 & ArduPilot seemingly provide an easy shortcut.

In reality, drones developed this way inevitably hit an innovation wall, unable to achieve the performance needed for their mission.

Developers are desperate for a better way.



The Aleph Flight Computer solves these development challenges.

Designed from inception to be powerful, open-source, and easily modifiable, **Aleph unlocks the next generation of autonomous platforms.**

Combined with the Elodin software platform, you can test and modify your flight software on Aleph and field new missions faster and with more capability than ever before.

