airvolute

Version
December 2024

- **Autopilots**

- **Payload support**

- **Platforms**

We make drone development faster, smarter, and more resilient

Our open-architecture NVIDIA-based autopilots and UAS platforms are used by NATO members as well as some of the largest aerospace and defence companies in the world.

Autopilots

From dev kits to all-in-one solutions for copters, fixed-wings, and more

Modular design

Build drones faster, smarter, more resilient with DroneCore 2

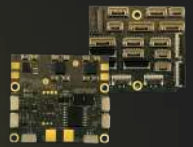
- ✅ Carrier board with rich connectivity
- ✅ Companion computer (Jetson Orin NX)
- ✅ Modular design for easy customization

🍝👾 Stop spaghetti monsters with an integrated board!

Pilot Board

CUBE Orange / Blue / Red
and Jetson Orin NX / Orin Nano

+



Default Dev Kit

PDB + connectors | See docs

+

Pro VTOL Kit

All-in-one 100V kit | See docs

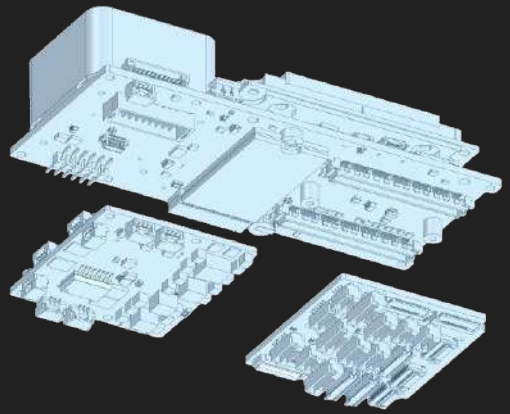
+

Pro FPV Kit

All-in-one FPV kit | See docs

Default dev kit (40V architecture)

Exchangeable adapter board and PDB allow to use the Pilot Board with Jetson and Cube for various kinds of airframes and user applications.



Default motherboard configuration [DCS.Pilot]

NVIDIA Jetson
Xavier NX or Orin NX

Primary FMU (Cube)

Secondary FMU

Jetson onboard sensors

- IMU
- Baro
- Temperature

Onboard connectors & peripherals

- USB 2.0 (config)
- M2 Key M (SSD)
- Gbit Ethernet (ZIF)
- HDMI output
- PPM
- Buzzer
- Secondary FMU peripheral connectors
- WIFI
- Bluetooth

Secondary FMU onboard sensors

- IMU
- Baro

Default extension board

Connectors:

- 2x CSI 2-lines
- 1x CSI 4-lines
- 2x Gbit Ethernet (ZIF)
- 1x PCIE (x1) (ZIF)
- 3x USB 3.2 + USB2.0 (ZIF)
- 3x CAN
- 3x GPS (UART + I2C)
- 1x I2C
- 2x Serial
- 1x PWM (7channels)
- 1x ADC+GPIO

Alternative extension board 1

Alternative extension board 2 → N

Default power distribution board

Regulators:

- 3v3
- 18V
- 3x 5V

Peripherals:

- 4x WS2812 LED channel

Connectors:

- 2x CAN
- 4x Solder PADs for external ESC
- 1x Solder PADs for switched supply output

Alternative power distribution board 1

Alternative power distribution board 2 → N

ESCs included

Ideal for quadcopters: DroneCore 1 with integrated ESCs

- ✅ Carrier board with rich connectivity
- ✅ Companion computer (Jetson Xavier NX or Orin NX)
- ✅ Electronic speed controllers (4x FOC-based)

🍝👾 Stop spaghetti monsters with an integrated board!

Payload support

Run the most popular payloads
on DroneCore out of the box

\+  

NextVision Kit (no TRIP)
Driver & hardware adapter | See docs

\+  

FLIR Hadron Kit
Driver & hardware adapter | See docs

\+  

G-Hadron Kit
Driver & hardware adapter | See docs

Platforms

Stribog UAS

Revolution in aerial intelligence

Made in the EU
Open architecture
Multiple payloads
Mil-spec radio
WiFi & 5G connectivity
GNSS-denied mode
Used by NATO members

Built for your own mission

Stribog is an extremely powerful quadcopter with up to 40 TOPS of AI computing and open architecture, allowing developers to build their own missions.

- GNSS-DENIED
- MODULAR PAYLOAD
- THERMAL CAM
- RADIO SILENCE
- OPEN ARCHITECTURE
- STANAG READY

Payload options

NextVision

FLIR Hadron

Radio options

DOODLE LABS

SILVUS TECHNOLOGIES

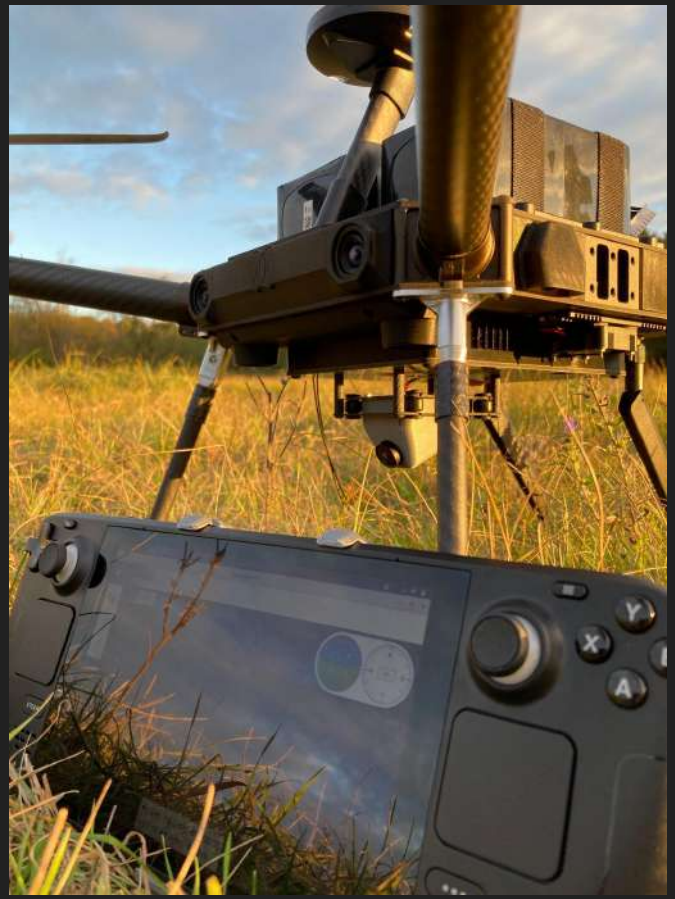
Diagonal wheelbase	685 mm
RTF weight without payload / with DragonEye2	4 kg / 4.4 kg
MTOW	6 kg
Flight time without payload	60 min
Temperature range	-20 to 45°C
Max. horizontal speed	17 m/sec
Max. wind resistance	12 m/sec
IP Resistance level	IP43

APPLICATION CAMERA / DragonEye2 /

RGB resolution	1280x720 / 1920x1080
Zoom	X40 (X20 + X2 digital)
Field of view	60° WFOV – 3° NFOV – 1.5° DFOV
Thermal resolution	640 x 480
Yaw / Roll for	-180° to +180°

OTHER FEATURES

GNSS-denied / absolute radio silence mode	Communication range up to 40 km
Object detection and tracking	Modular payload
Autonomous safe landing / Home function	Mesh radio
Autonomous obstacle avoidance	Lidar 0.2 - 50m range
ATAK / CivTAK compatible	Fits into tactical backpack



SENSING SYSTEM

Forward	Stereo camera 120mm baseline FOV: horizontal 92.76°, vertical 66.89°, 1280x800px
Downward	Mono camera; FOV: horizontal 92.76°, vertical 66.89°, 1280x800px
Global Navigation Satellite System	GPS + Galileo + BeiDou
Lidar	0.2 - 50m range

AUTOPILOT

DroneCore.Suite	DroneCore.Suite 1.2 with NVIDIA Xavier NX 16 GB 512GB M.2 SSD storage
Flight stack	DroneCore.OS, MAVLink-based FMU

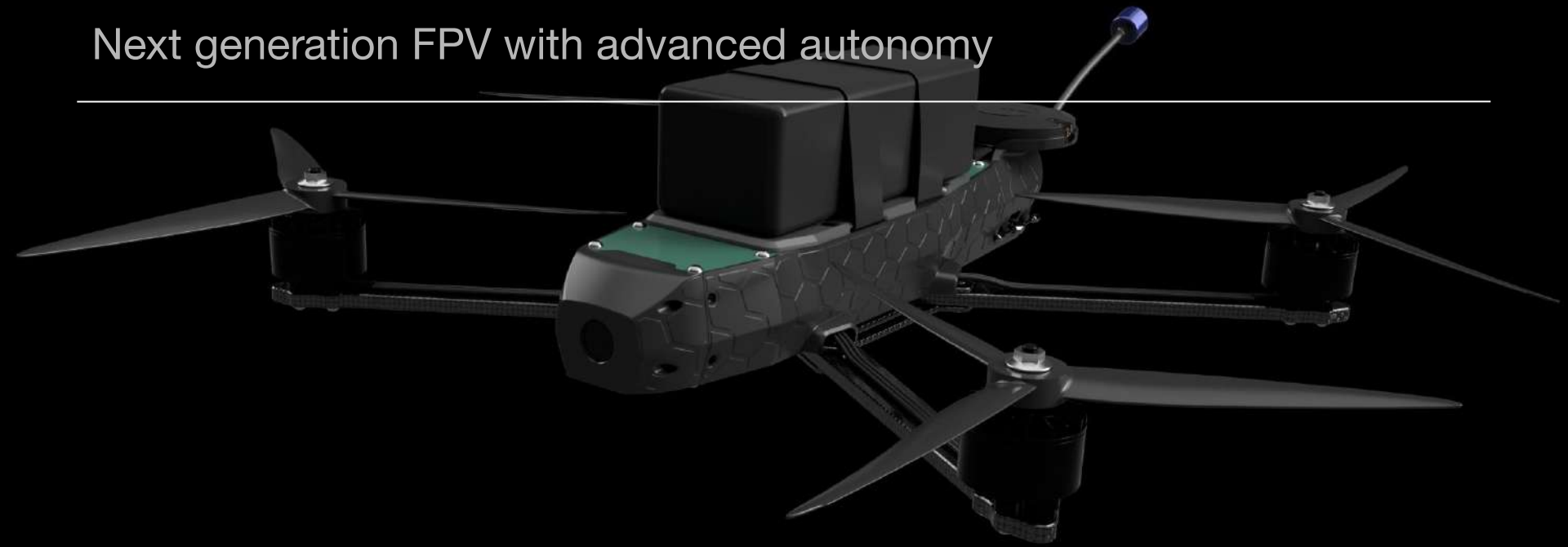
COMMUNICATION INTERFACES

Radio remote control	Doodle Labs radio / Silvus radio
Data connectivity	WIFI, LTE modem


Upload Required
Basic
Circular
Trace
Load KML/SHP...
Polygon Tools
Mission
Fence
Rally
Survey
Altitude
Trigger Dist
Spacing
Transects
Angle
Turnaround dist
Options
Rotate Entry Point
Statistics
Survey Area
Photo Count
Photo Interval
Trigger Distance
Return To Launch

AI FPV

Next generation FPV with advanced autonomy



Future-proof FPV with advanced autonomy overcomes weaknesses of classical FPVs

Option to upload a new DNN model
AI-assisted target preselection
Use of head-tracking for target acquisition
Digital zoom
Last mile / terminal guidance algorithm
High resolution digital camera processing

For inquiries contact info@airvolute.com

We supply UAS solutions to some of the largest defense & aerospace companies in the world.

We are an ISO 9001 certified company.

airvolute

info@airvolute.com | www.airvolute.com