

# Autonomous Kit For DuoVero

## Product datasheet

KIT049

USD379.00

Autonomous Kit for DuoVero

The kit consists of the following components:

- AeroCore 2 for DuoVero
- DuoVero Zephyr-Y COM
- Pre-GO
- USB Cable (micro-B to standard-A)

Powered by an AeroCore 2 for the DuoVero, which contains an ARM Cortex-M4 microprocessor, and an included DuoVero Zephyr-Y COM, the Autonomous Kit For DuoVero offers all the tools you need for your unmanned aerial vehicle.

With NutX RTOS for real-time servo control and onboard WiFi 802.11b/g/n and Bluetooth 4.1 communications, the Autonomous Kit for DuoVero will have you flying in no time at all.

The brain of the kit is the AeroCore 2 MAV control board which runs NutX RTOS for real time servo control and sensor measurements. The DuoVero COM provides access to onboard wifi and Bluetooth 3.0 and/or 802.11b/g/n wireless communications transmitted by the U.FL antenna. It is fully compatible with PX4 software, including MAVLink and QGroundControl and supports Mission Planner, ArduPilot and APM Planner.

This kit replaces the discontinued AeroCore DV Kit and features the new AeroCore 2 for DuoVero and the Pre-GO board.

### Product Features

Input/output	
<b>24-Pin Header</b>	8xPWM Outputs
<b>40-pin header</b>	GPIO/Breakout and Power
<b>6-Pin Header</b>	Cortex-M4 SPI Breakout
Robotics	
<b>Barometer</b>	Included
<b>GPS</b>	U-Blox NEO-7M GPS Receiver
<b>Gyroscope</b>	ST L3G4200D 3-Axis Gyroscope
Communications	
<b>Bluetooth</b>	3.0
<b>USB Console Port</b>	FTDI USB-UART
<b>WiFi</b>	802.11b/g/n
Inter-board connector	
<b>Board-To-Board Connector</b>	2 x 70-pin Hirose DF40 Connectors
Mechanical	
<b>Height</b>	4.2 mm (0.16 inch)
<b>Length</b>	96.5 mm L
<b>Width</b>	50.1 mm W
Memory	
<b>Flash Memory (NAND)</b>	0
<b>RAM</b>	1 GB
Processor	
<b>Graphics Acceleration</b>	PowerVR™ SGX540 OpenGL
<b>Digital Signal Processor</b>	C64x+
<b>Performance</b>	Up to 2,500 Dhrystone MIPS
<b>Processor</b>	ARM Cortex-M4 Microcontroller
<b>Processor Architecture</b>	ARM Cortex-A9
<b>Processor Base Clock</b>	1 GHz
<b>Temperature</b>	Built with components rated 0C <T <75C
Power	
<b>Power Management</b>	SmartReflex™ 2 Technology
Product series	
<b>Product Family</b>	DuoVero
Storage	
<b>Storage Expansion</b>	via microSD Card Slot

### Mating connector

- 1 × U.FL Connector
- 2 × 70-Pin DF40 Connectors (Male DuoVero COMs)
- 2 × 70-Pin DF40 Connectors (Female DuoVero Exp.)

### What's included

- 1 × USB Cable (micro-B to standard-A)
- 1 × DuoVero™ Zephyr COM
- 1 × GPS Board
- 1 × AeroCore 2 for DuoVero

### Key component

- 1 × U.FL Antenna with Collar
- 1 × microSD Card Slot
- 1 × W2CBW0015 Wifi+Bluetooth Module
- 1 × Texas Instruments TWL6040 Audio Codec
- 1 × Texas Instruments OMAP 4430 Processor
- 1 × Texas Instruments SN65HVD232 CAN Transceiver
- 1 × Texas Instruments TPS62111 Step-Down Converter
- 1 × FTDI FT232RQ USB UART Interface
- 1 × ST L3G4200D 3-Axis Gyroscope
- 1 × Memory (SPI FRAM 1MB 1.8V)
- 1 × MS5611 Barometric Sensor

### Product links

- [Firmware](#)
- [Bootloader](#)
- [Firmware \(.px4\)](#)
- [Geppetto®Workspace](#)