

Finch Serial

Converting serial protocol (JetiEX, Core P2Bus) to
Albatross protocol



Manual version: 1.1

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Introduction

The Finch Serial unit is designed as bridge to convert different serial protocols (Jeti EX, Core P2Bus) to Albatross App protocol. It is converting data from Sparrow / Raven onboard units.

Key features

- External SD for updates
- Plug & play

Specifications

Unit Dimensions	42 mm x 22 mm x 11 mm
Weight	11 grams
Temperature Range ¹	-10°C ~ +60°C
Input Voltage Range	5.0 volts DC USB
Input Current	84 milliamps

¹ Specifications are taken from component ratings and system limits and may not have been tested to the full extent of the specified ranges.

Physical overview

Figure 1 shows the Finch Serial module.

Main connectors are:

- 3- pin JR input for connecting Jetti Cable or JR cable tor Core

- Onboard multi-color LED shows different status of operation:

At power on all LEDs are toggled (red, green, blue and white) to confirm its operation, during operation LED status are:

red – module is waiting for valid serial signal

green – module got all needed data and forwards it to Albatross

blue – not yet implemented.

white – not yet implemented.

- External SD card connector is used for firmware updates or to set Finch to listen mode via Finch Settings.ini file. **SD card is not included in the package!**

- Micro USB is used to connect the Finch to an Android tablet or phone to display the flight data thru Albatross app. Finch will get power from Android device via USB connection so Android device must support OTG mode to supply power to the unit.



Figure 1: The Finch Serial module.

Using the Finch Serial module

Powering the module

To power the module, connect it to a tablet or phone via Finch USB cable. Connect Jeti Cable to Finch 3-pin JR connector or JR cable from Core to JR connector. Connect onboard unit and green LED must turn on. Run the Albatross application and you are ready to use it.

Update via SD card

To make an update make following:

1. Download latest firmware for Finch from our web site. Firmware should have name Finch.rcu
2. Copy Finch.rcu to root of SD card
3. Insert SD card to Finch module and power it up.
4. Wait for 5-8s until all LED lights will toggle shown
5. Remove SD card and check "Finch info.txt" file that new version is installed.

Finch info.txt example:

Device: Finch	- device name
Serial No: 190001	- device serial no.
HW: 1.1	- HW version of device
Produced: 20.12.2019	- date of production
FW v: r.0.9.B110	- FW version installed

Revision history

24.12.2020	V1.1	- Rename to Finch Serial, added Core P2Bus support
20.12.2019	v1.0	- initial release