

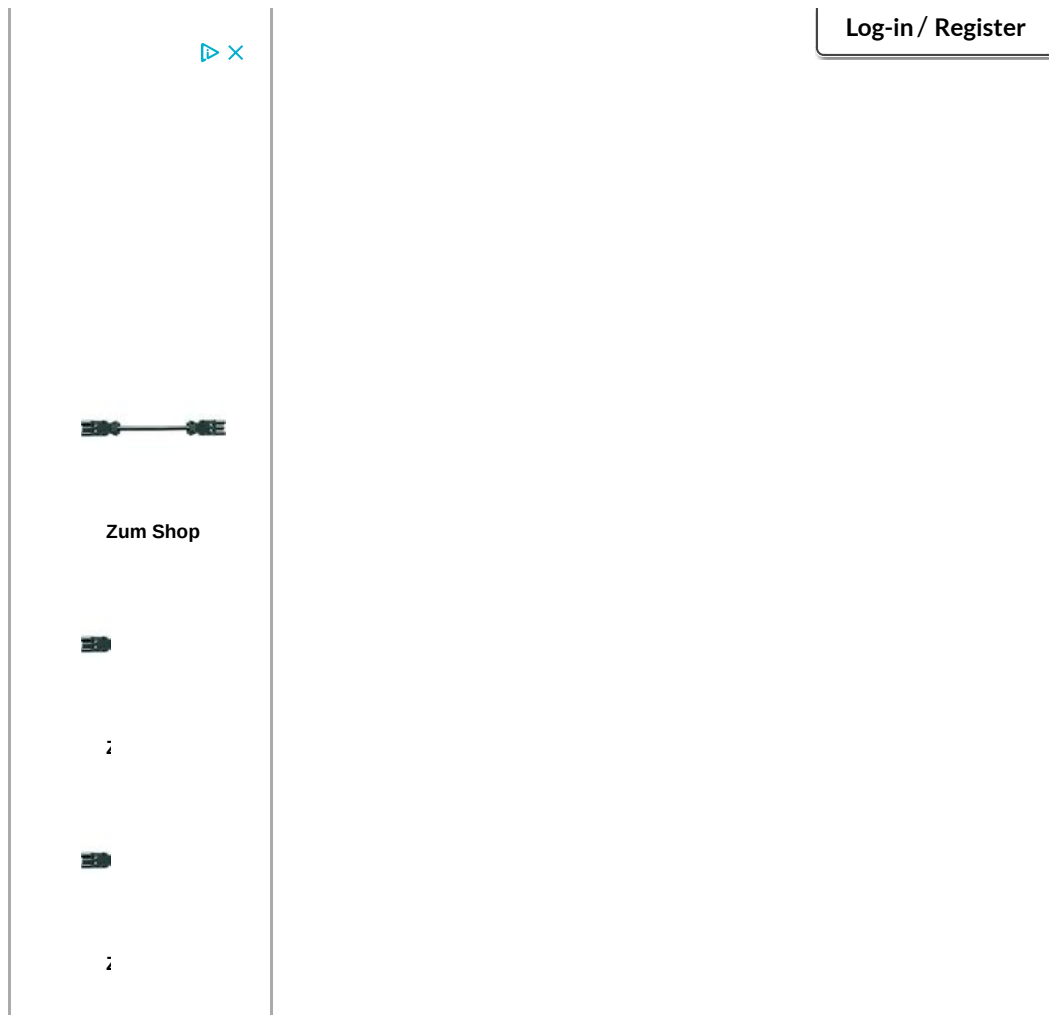
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Connection

- [Bluetooth](#) – you need a Bluetooth module like this one [Link](#)
- [WiFi](#) – you need some sort of WiFi<->RS232 bridge
- [USB](#) – if your Android supports usb host (OTG) mode you can connect flight controller via USB cable
- [3DR Radio](#) – via USB OTG cable + 3dr USB Module
- [FrSky telemetry](#) (one way connection)

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Bluetooth

Bluetooth module ([Link](#)) can be connected to any available serial port on your Flight Control board. It has to be configured to match the baud rate. Standard baud rate for MultiWii is 115200.

Many of available Bluetooth modules should work out of the box.

The connection should be made like this:

VCC (5V) ——— VCC

Tx ————— Rx

Rx ————— Tx

GND ————— GND

In MultiWii EZ-GUI go to Settings, select Bluetooth option at [Log-in / Register](#) it MultiWii BT” button. The list with available devices will be shown. Choose correct one and you are ready to go.

Probably the best practice is to pair the Bluetooth module with Android before you start setting it up in the MultiWii EZ-GUI settings.

How to configure a HC-06 Bluetooth adapter

How to configure a HC-06 Bluetooth adapter for MultiWii



Naze32 Quick Tip – Adding Bluetooth (HC-06 module)





USB

If your device supports usb host (OTG) you can connect MultiWii board directly via USB. However you should have Android 4.0 or later.

There are three drivers to choose from:

Driver	Supported devices
Universal <u>Try it first</u> driver	CDC-ACM, FTDI, Silicon Labs CP210x
FTDI	FT232RL, FT232H, FT2232C/D/HL, FT4232HL FT230X, REX-USB60F/MI(FT232BL)
Other	Supported and tested:FT232RCDC/ACM serial servicesCP2102(All Arduino devices we know of use one of these two drivers, and are supported.)Possibly supported (untested):FT232HFT2232DFT2432H

Remember to set correct baud rate. By default for MultiWii is 115200 bauds.

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3DR Radio

The connection should be made like this:

VCC (5V) ——— VCC

Tx ————— Rx

Rx ————— Tx

GND ————— GND

Configuration in EZ-GUI is the same as USB connection. 3DR Radios use FTDI chip. Baud rate is usually 57600 bauds but it depends on your configuration.

For better compatibility you can use MultiWii aware firmware for 3DR Radio (from [here](#))

WIFI

[MultiWii \(Clearflight\) WiFi to EZI-GUI “HOW-TO”](#)

FrSky telemetry

EZ-GUI comes with FrSky telemetry protocol support. Not all features are implemented. Connection through FrSky is only one way. It means the app can read data from fly control board but nothing can be send to the FC. EZ-GUI can display GPS location, altitude, speed etc. But you can't set PID, upload the mission etc.

Connection is more complicated here then any other listed a

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To connect your MultiWii or Naze32 board to the EZ-GUI via FrSky you need:

- FrSky receiver and transmitter with telemetry support
- Two rs232 level converters like this one <http://pages.ebay.com/link/?nav=item.view&id=161450803710&alt=web> (for Naze32 you need only one)
- Bluetooth module configured for the baud rate 9600

Connection to MultiWii

You have to connect Rx and Tx of chosen serial port of you MultiWii board via level converter to the FrSky receiver.

Also you have to find the FrSky source code for the multiwii and add it to your firmware manually and upload it to your board.

Connection to Naze32

Naze32 uses software serial so the level converter is not needed. You can connect your FrSky receiver directly to your Naze32 board. Also FrSky support is build in into naze32 firmware and you have to just turn it on.

Receiver side

The Bluetooth module has to be configured to baudrate 9600 and connected to the FrSky transmitter via level converter.

EZ-GUI configuration

In EZ-GUI go to settings section. Check FrSky support. Select correct Bluetooth device. "Use FrSky data everywhere" has to be checked to display gps position, speed and altitude. Use "FrSky connect".

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25 Comments

**SloS13**

OCTOBER 22, 2015 AT 22:12

Just tried connecting to two different Naze32s with 2 different OTG cables. Communicates for about 5 seconds then phone (Samsung Galaxy S6 Edge) resets. First two driver options result in the same behavior. The third option always fails to connect. Tried clearing EZGUI data on phone. No joy 😞

[LOG IN TO REPLY](#)**ezio** (Post author)

OCTOBER 23, 2015 AT 05:33



Arduino kompatibles N

CHF 9.36
reichelt.com

There is some problem on samsung devices after last Android update. Usb driver somehow forces the phone to reboot. I don't know how to fix it as the problem is not in EZ-GUI. I'll try to find a way around.

[LOG IN TO REPLY](#)**Zector555**

OCTOBER 13, 2015 AT 03:00

Has anyone tried a NRF905 module to communicate with the copter?

[LOG IN TO REPLY](#)**Michal**

JULY 17, 2015 AT 20:21

I find EZ GUI Ground Station very useful and simple to use application. When out, flying, I can always double check/change settings in the field, before take off without carrying laptop.

However I have one remark, when the app loses connection over Bluetooth to my Naze it does not try to reconnect. I have to disconnect and then connect app

manually. Do I have something wrong setup?

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If this behavior is not a bug, then please consider my post as request of a feature. I think auto auto-reconnect would improve user experience and ease hassle with manual reconnecting the flight controller.

Otherwise, thumbs up!

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Johnhi30

JUNE 19, 2015 AT 22:55

Hi Ezio, thanks for the fantastic app. I'm also having problems in that the bluetooth stream stops as soon as I arm on a Naze32 rev 5, is there any issue with having Frsky Telemetry enabled at the same time as Bluetooth ?

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ezio (Post author)

JUNE 20, 2015 AT 00:33

Hi

I have read about this somewhere. But I don't remember what is the cause of that. It is something with serial port configuration in cleanflight. Try to set ports in cleanflight configurator to default settings and it should work. And if you find better answer let me know.

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Greg Fordyce

MAY 16, 2015 AT 07:46

Hi, I am trying out ez-gui on a naze32 and cc3d, both running cleanflight 1.8.1. Using a USB OTG cable I can connect to the naze32 but not the cc3d. I suspect a driver issue and have tried all 3 drivers. When connecting to the cc3d using the cleanflight app on windows the ST Micro Virtual Com Port driver has to be installed first (<http://www.st.com/web/en/catalog/tools/PF257938>). If it is a driver issue will you be able to look at this and possibly include the driver? Or would I be able to use a ftdi cable onto the cc3d onboard UART port?

Thanks in advance for your help.

Greg

[Log-in / Register](#)[LOG IN TO REPLY](#)**ezio (Post author)**

MAY 17, 2015 AT 13:51

I have ordered cc3d board so I will make more test soon. For now you can connect it via FTDI adapter.

[LOG IN TO REPLY](#)**Greg Fordyce**

MAY 18, 2015 AT 11:03

Thanks, I've just purchased the unlocker, a small contribution towards the development.

[LOG IN TO REPLY](#)**Alex**

JUNE 2, 2015 AT 18:59

My cc3d does the same thing with the driver and also cant connect to ez-gui. I suspect doing the ftdi trick will fix it but I haven't tried it yet.

<https://wiki.openpilot.org/display/WIKI/How+to+Flash+Bootloaders+with+an+FTDI+Cable>

[LOG IN TO REPLY](#)**ezio (Post author)**

JUNE 2, 2015 AT 19:09

Yes this should work.

[LOG IN TO REPLY](#)**Christian**

MAY 11, 2015 AT 20:18

Hello, on a Samsung phone works the Bluetooth, the connection is set up, on my LG phone I can not connect, what's the problem?

[LOG IN TO REPLY](#)[Log-in / Register](#)**Marwen**

APRIL 20, 2015 AT 09:14

Hi, can I use 3DR module (915Mhz) for both control and telemetry with an arduino uno or pro mini ? If possible how ?

Thanks a lot.

[LOG IN TO REPLY](#)**ezio (Post author)**

APRIL 22, 2015 AT 15:41

Yes you can but it is not a good idea. <http://ez-gui.com/manual/controlling-a-model-from-the-ez-gui/>

[LOG IN TO REPLY](#)**Marciano**

APRIL 15, 2015 AT 17:06

Hi Ezio, how can I configure your apk to get a 1200 baud link? I can change the SERIAL speed in the Multiwii code for the port I use, but how can I change that in your app? Thx

[LOG IN TO REPLY](#)**ezio (Post author)**

APRIL 15, 2015 AT 22:32

If you use serial connection you can set the baud rate in the app settings. If you are use Bluetooth you don't have to set baud rate in the app.

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**shubho**

APRIL 3, 2015 AT 06:48

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Hi ezio, if I m not wrong the Bluetooth has a very short range..then how will the mobile app set the waypoint for the copter at a very distant location...I will b very thankful if u clarify my doubt.Thank you

[LOG IN TO REPLY](#)**ezio (Post author)**

APRIL 3, 2015 AT 22:45

Bluetooth has a max range about 100m. In real life and with modified antenna I get 30-50m.

If you want to have longer range you have to switch to something else like 3DR Radio.

For mission with waypoints you don't have to have connection with the phone at all. When you upload the mission it is stored in the flight controller.

[LOG IN TO REPLY](#)**mcfroz**

MARCH 23, 2015 AT 02:15

I have a Bluetooth connected to a naze32 running cleanflight. It works good. But I loose any live connection when I arm the board. As soon as I land and disarm it will connect and start sending data. Any idea of what's going on?

[LOG IN TO REPLY](#)**ezio (Post author)**

MARCH 25, 2015 AT 23:53

I have no idea what can be wrong. Let me know if you figured that out.

[LOG IN TO REPLY](#)**Ryan Houborg**

APRIL 8, 2015 AT 00:28

MCFROZ, I had the same issue. I found that is had the black box feature enabled, so as soon as I armed, the black box took the stream away from telemetry. Disable black box and see if it works.

[LOG IN TO REPLY](#)[Log-in / Register](#)**mark miner**

MARCH 12, 2015 AT 16:54

I want to be able to change settings on my quad from my phone over usb. If I get a cable to connect USB to USB from my phone to the Naze 32 controller does it plug into the normal USB controller slot on the Naze 32?

[LOG IN TO REPLY](#)**ezio (Post author)**

MARCH 12, 2015 AT 17:41

Your phone has to support usb OTG mode (usb host). And you need OTG cable. You connect normally to the Naze32 usb port. In EZ-GUI settings you have to choose USB/Serial port connection type.

[LOG IN TO REPLY](#)**civicexa**

FEBRUARY 14, 2015 AT 12:36

Hi,

My quad is working with a bluetooth module at 115kbps. If I set the bluetooth module to 57600, Ez-Gui automatically recognize the new speed data transfer? or I have to configure the new bps on Ez-Gui.

Thanks,

[LOG IN TO REPLY](#)**ezio (Post author)**

FEBRUARY 14, 2015 AT 13:18

There is no setting for a speed between EZ-GUI and bluetooth module. It is negotiated automatically.

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