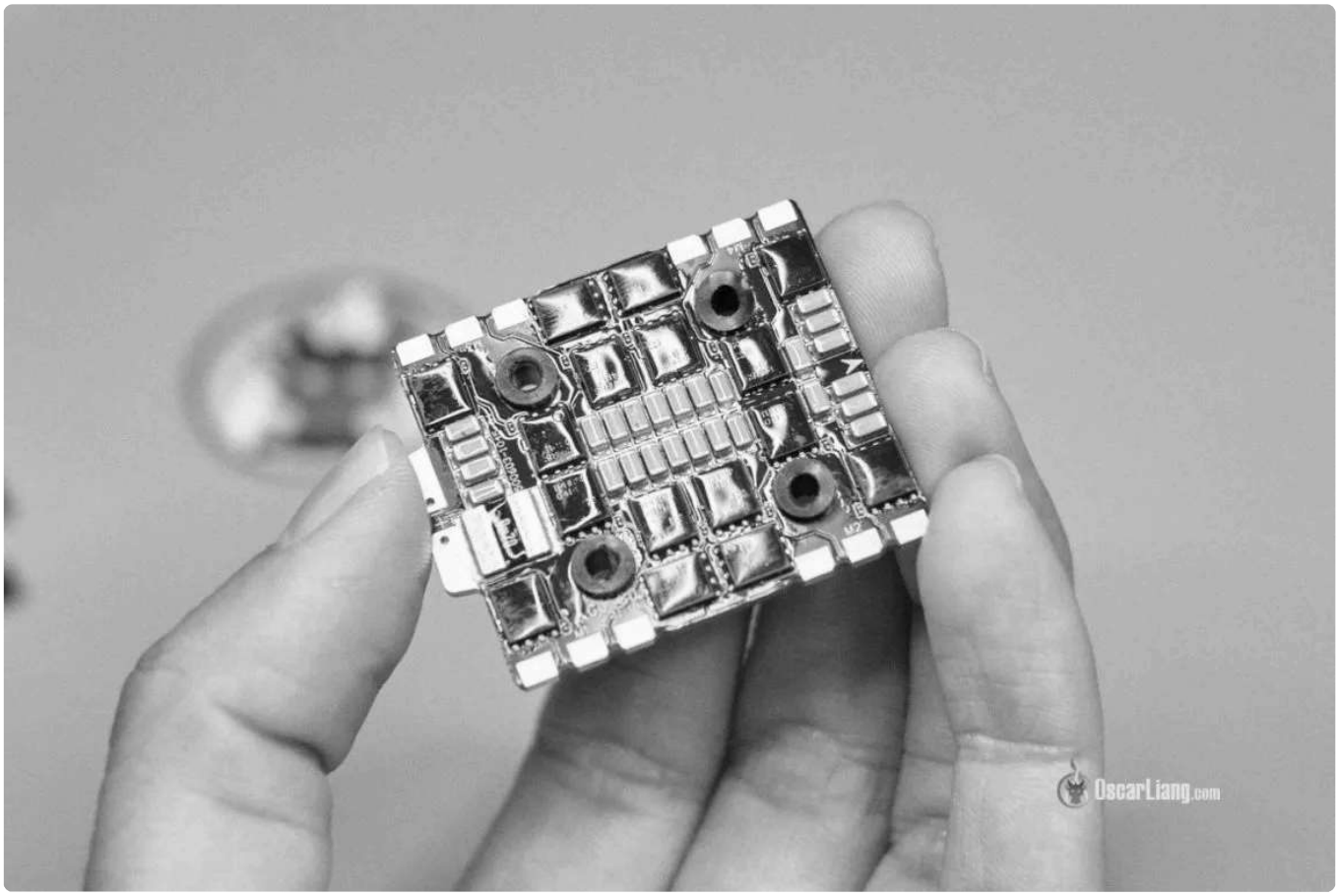
How to Identify ESC Firmware Before Flashing (BLHeli_32, AM32, BLHeli_S, Bluejay)

6th November 2023



Before updating ESC firmware, it's essential to know which firmware your ESC is currently running, as the software required can vary. Here's a general outline to guide you through identifying your ESC firmware.

Wondering what ESC are hot right now? Here are my recommendations: https://oscarliang.com/esc/#ESC-Recommendations

The Different ESC Firmware

At the time of publishing, these are the four primary ESC firmware options for FPV drones (though there are others, these are just the most common):

- BLHeli_32
- AM32
- BLHeli_S
- Bluejay

In this guide, I explain in more detail what ESC firmware is and the brief history of each of them: https://oscarliang.com/esc-firmware-protocols/

BLHeli_S and Bluejay firmware are designed for ESC with 8-bit processors. They are interchangeable, but generally Bluejay is favoured for its superior performance, robust features set and consistent updates.

BLHeli_32 and AM32 are designed for ESC with 32-bit processors. Some BLHeli_32 ESC can switch to AM32, but be aware that doing so erases the MCU memory, preventing return to BLHeli_32. The debate over which firmware better is ongoing, but my advice? Stick with the firmware that your ESC came with for now.

Identifying ESC Firmware

If you are unsure which firmware your ESC is running, here are a few steps to find out.

1. **Consult Product Page**:

2. **Use Configurator Software**:
    1. For a direct approach, try connecting your ESC to a configurator. If the firmware matches, the software will read the ESC's config; if not, you'll get a connection error.
    2. Begin with ESC-Configurator (https://esc-configurator.com/), it's an online tool that doesn't require any downloads or installation. This should tell you if your ESC is BLHeli_S or Bluejay, which are common for many budget ESCs.
    3. If ESC-Configurator doesn't recognize your ESC, it might be BLHeli_32. In that case, try to connect with BLHeliSuite32 software. If there's still no success, your ESC might be AM32.

3. **Community Forums**:
    1. If none of these work, you might just have a really old ESC with an outdated firmware.
    2. Reach out to FPV communities and forums (such as https://intofpv.com) with your ESC or drone model information, upload some photos of your ESC and someone may be able to help identify your firmware.

Flashing ESC Firmware

Ready to update your firmware? Check out my tutorials for a comprehensive guide:

- BLHeli_32: https://oscarliang.com/connect-flash-blheli-32-esc/
- AM32: https://oscarliang.com/am32-esc-firmware-an-open-source-alternative-to-blheli32/#How-to-Flash-AM32
- BLHeli_S: https://oscarliang.com/connect-flash-blheli-s-esc/
- Bluejay: https://oscarliang.com/bluejay-blheli-s/

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