

# User Guide: Flashing Beat Machine Firmware onto ESP32 with ESPConnect

Follow these steps to flash the Beat Machine firmware onto your ESP32 using the web-based ESPConnect.

## Prerequisites

- Computer with Chromium web browser and internet access
- Beat Machine device and USB cable
- Firmware file: Beat\_Machine\_S3\_Code.ino.bin (get from <https://github.com/algomusic/beatmachine>)

## Steps

1. Open a Chromium browser on your computer and visit the ESPConnect site:  
[https://thelastoutpostworkshop.github.io/microcontroller\\_devkit/espconnect/](https://thelastoutpostworkshop.github.io/microcontroller_devkit/espconnect/)
2. Connect the Beat Machine to the computer via USB. USB C -> C seems to work best.
3. In ESPConnect click the 'Connect' button and select the port for the Beat Machine and click 'connect' in the popup dialog. ESPConnect should display info about the ESP32 chip.
4. On the left of the ESPConnect site, click 'Flash Tools'. Scroll down to the 'Flash Firmware' section of the page.
5. Drag the Beat\_Machine\_S3\_Code.ino.bin from your computer onto the Firmware Binary area of the site.
6. From the 'Recommended Offsets' menu select 'app0 - 0X10000'
7. Click the 'Flash Firmware' button, confirm if required, then wait for the firmware to be uploaded.
8. The Beat Machine should restart, if not press the Reset button.
9. Close the Browser.