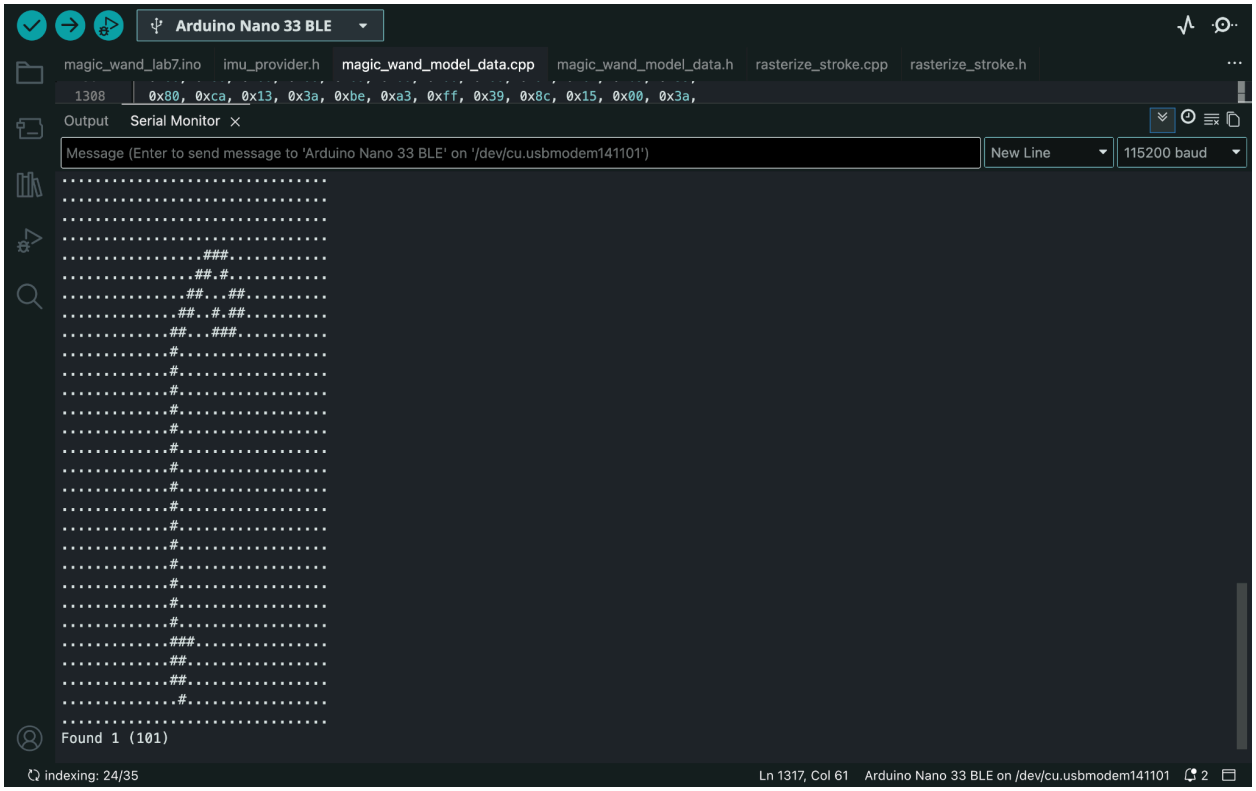
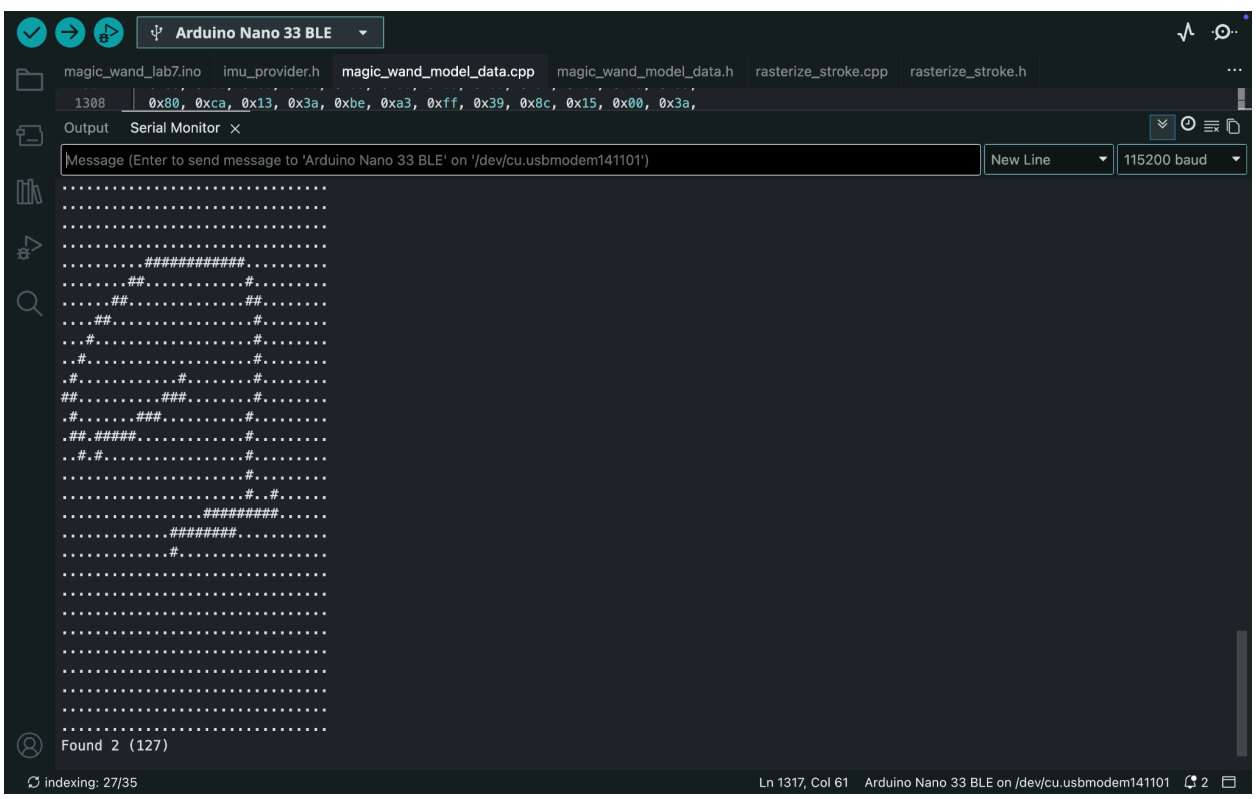
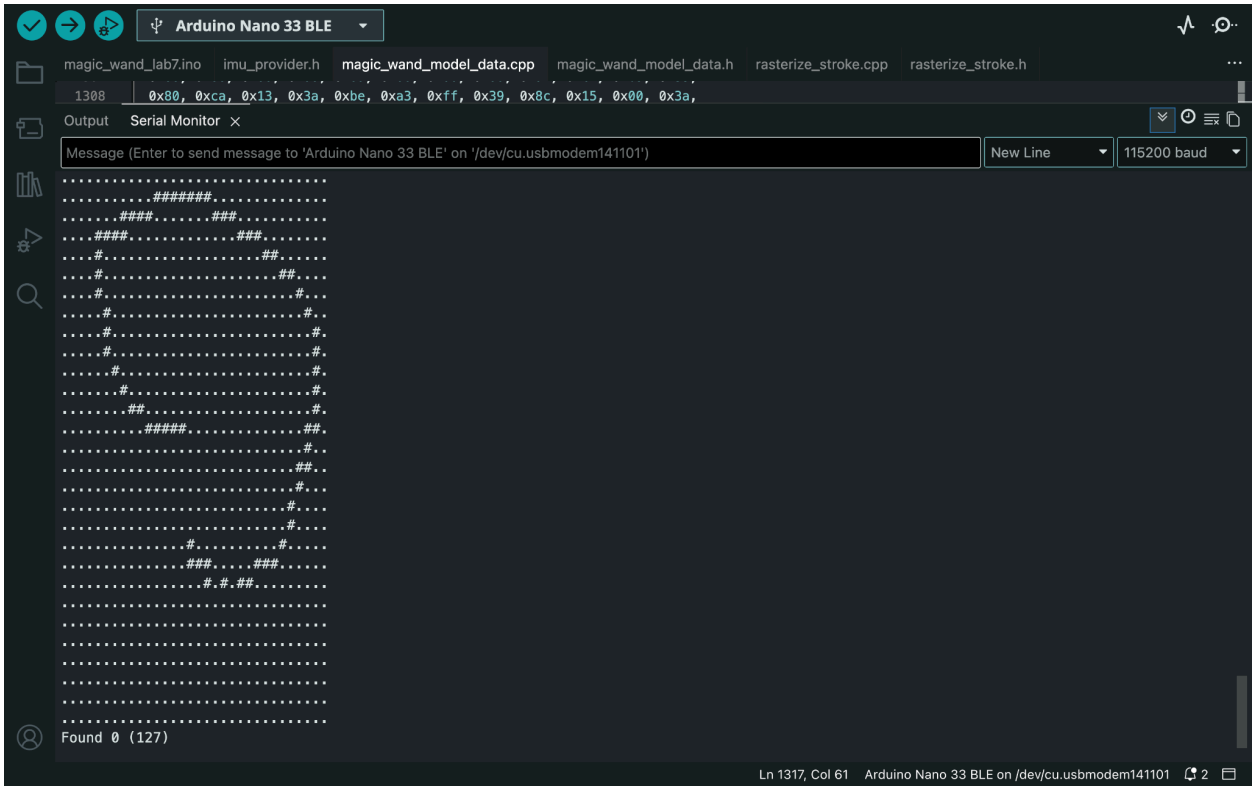
Discussion

- Between the baseline model and the finetuned model, the baseline model actually performed better than the finetuned in my case. The difference in performance is mainly caused by the poor dataset I collected and used for finetuning.
- For the dataset collection, it was actually split into three person: me, Ben, and Adi. Although we were each supposed to collect 10 labeled numbers from 0-9, the combined dataset ended up with only 74 features, and 19 of those were unlabeled, which means the dataset is really small and skewed.
- Moreover, because the finetuning dataset was collected by three different individuals, that data wasn't tailored to me. Hence during deployment and inference, it wasn't really doing that well for my specific writing habits.

Baseline model






Arduino Nano 33 BLE
magic_wand_lab7.ino
imu_provider.h
magic_wand_model_data.cpp
magic_wand_model_data.h
rasterize_stroke.cpp
rasterize_stroke.h
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Message (Enter to send message to 'Arduino Nano 33 BLE' on '/dev/cu.usbmodem141101')
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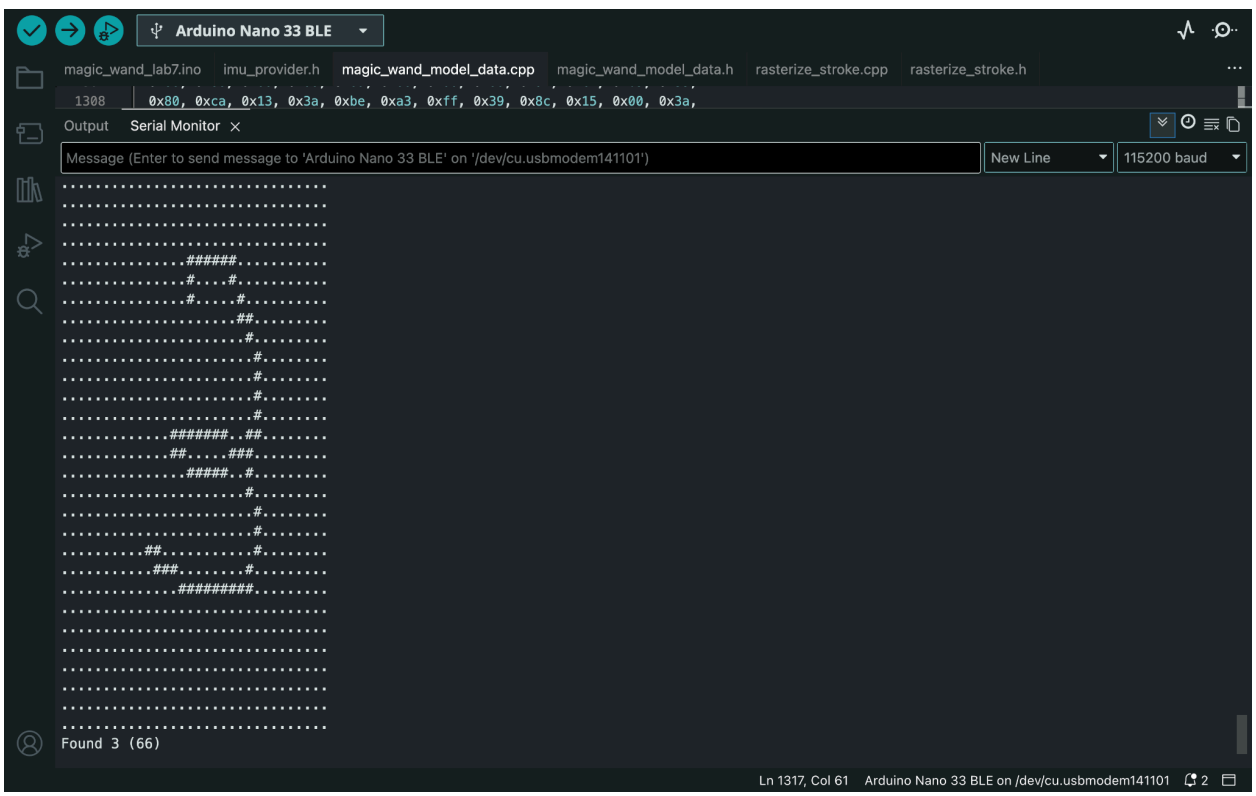
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magic_wand_lab7.ino
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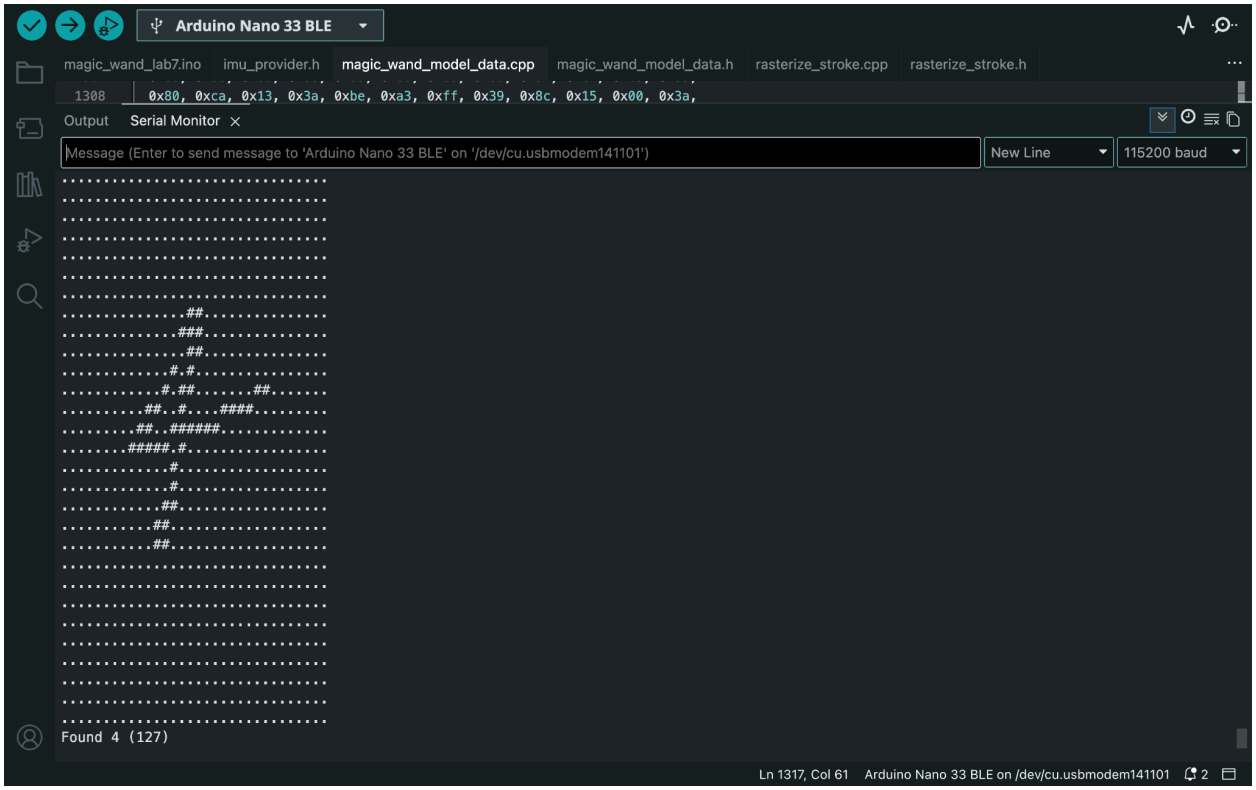
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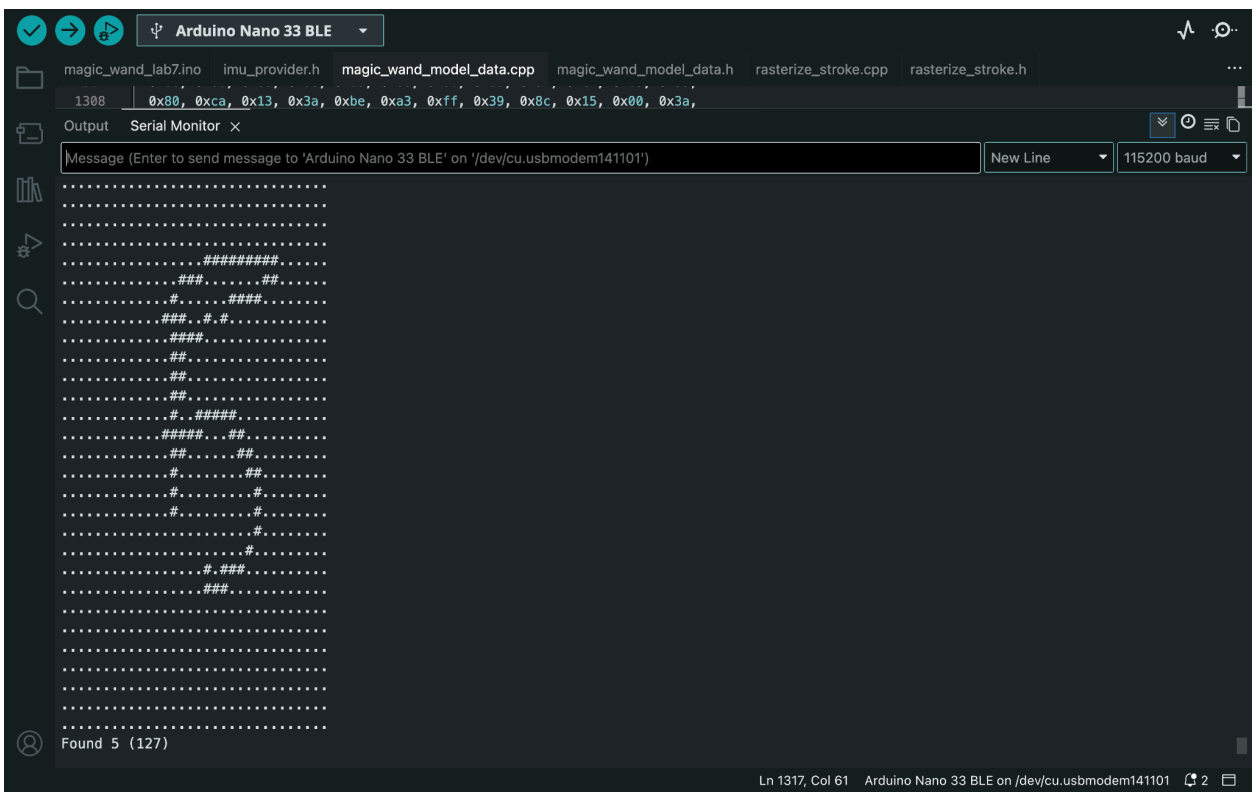
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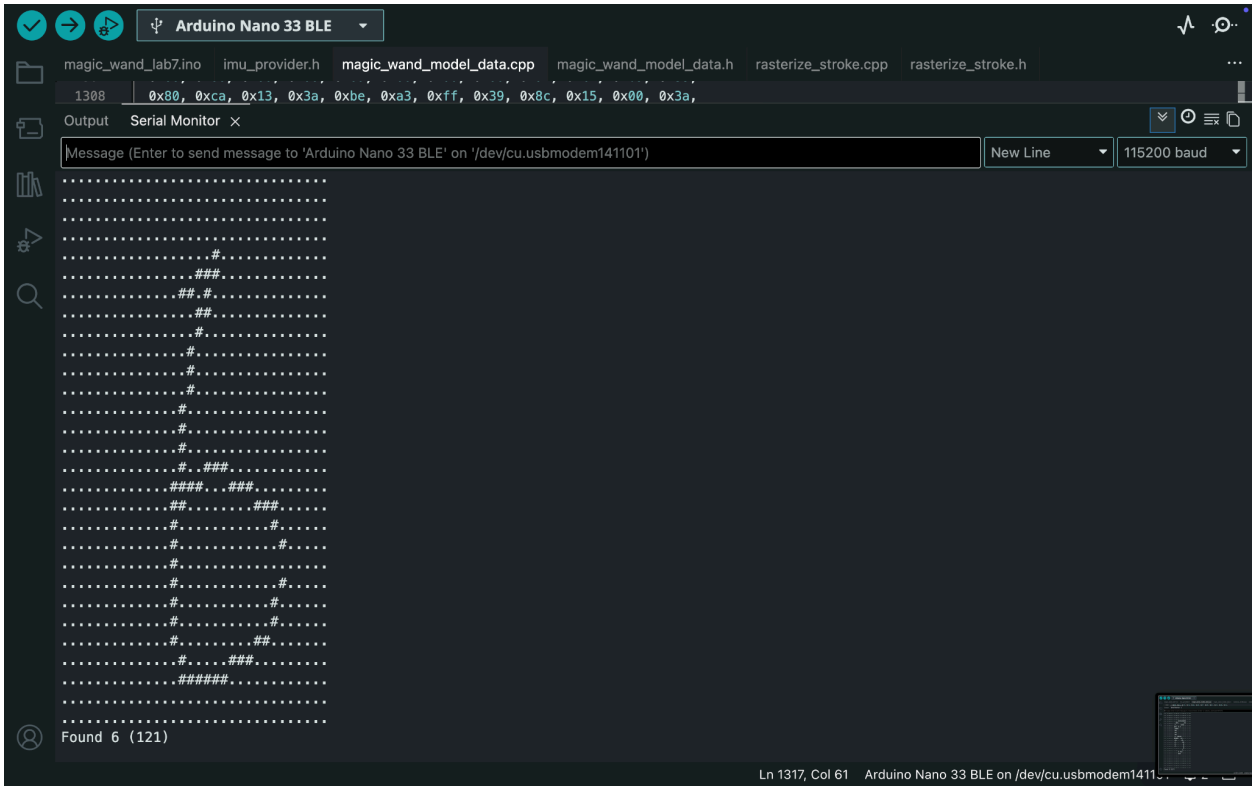
Arduino Nano 33 BLE on /dev/cu.usbmodem141101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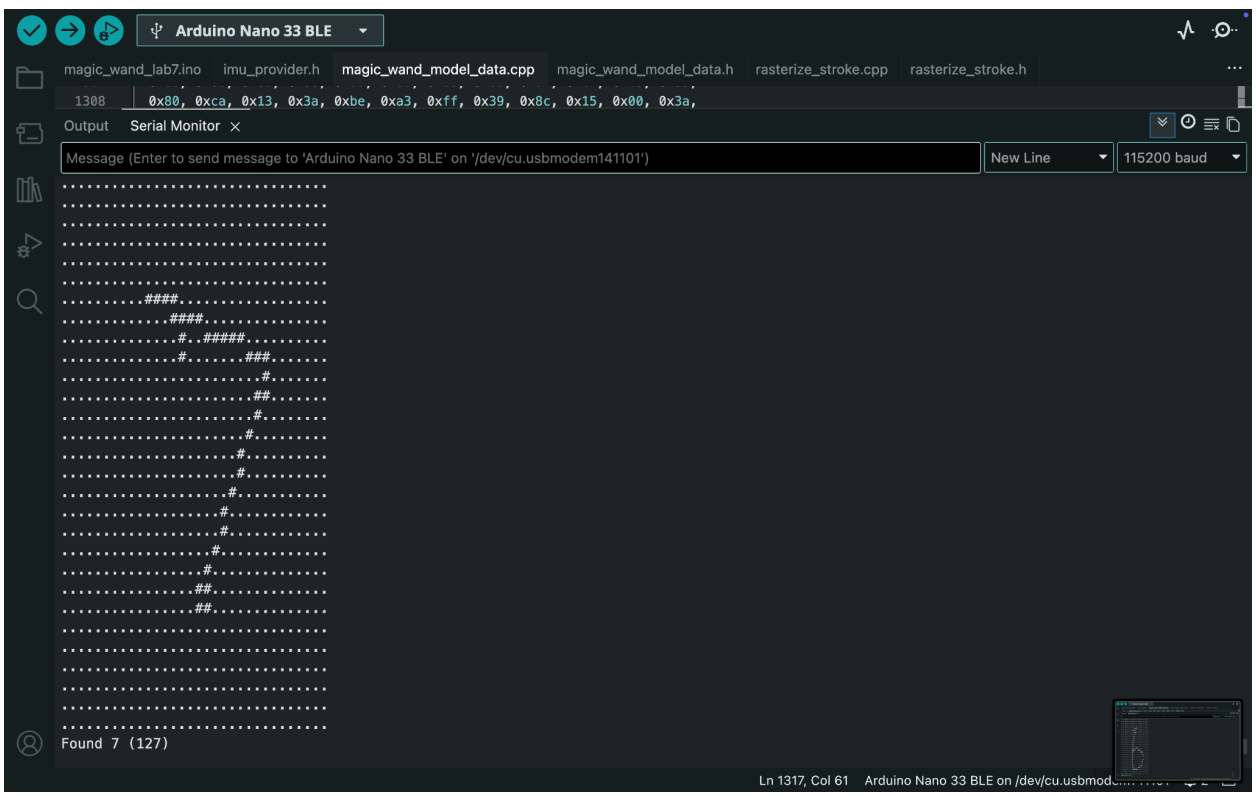
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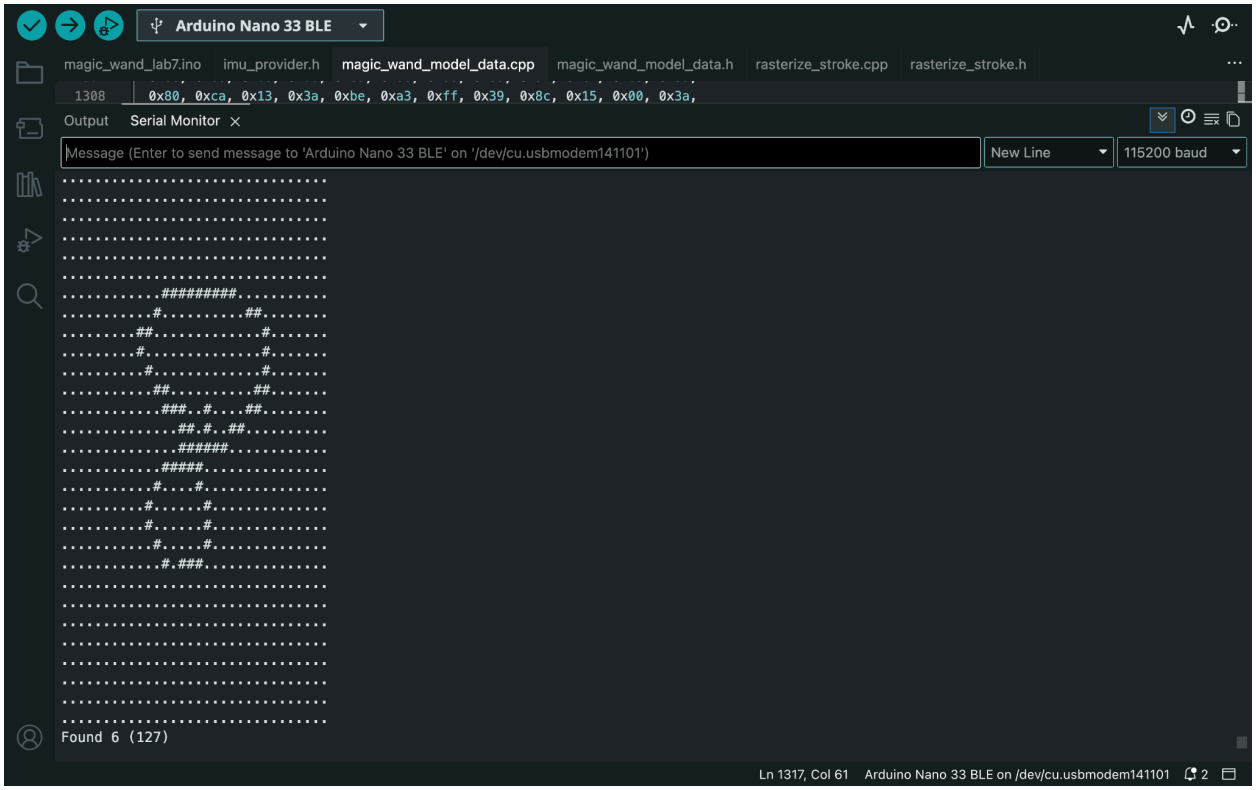
Arduino Nano 33 BLE on /dev/cu.usbmod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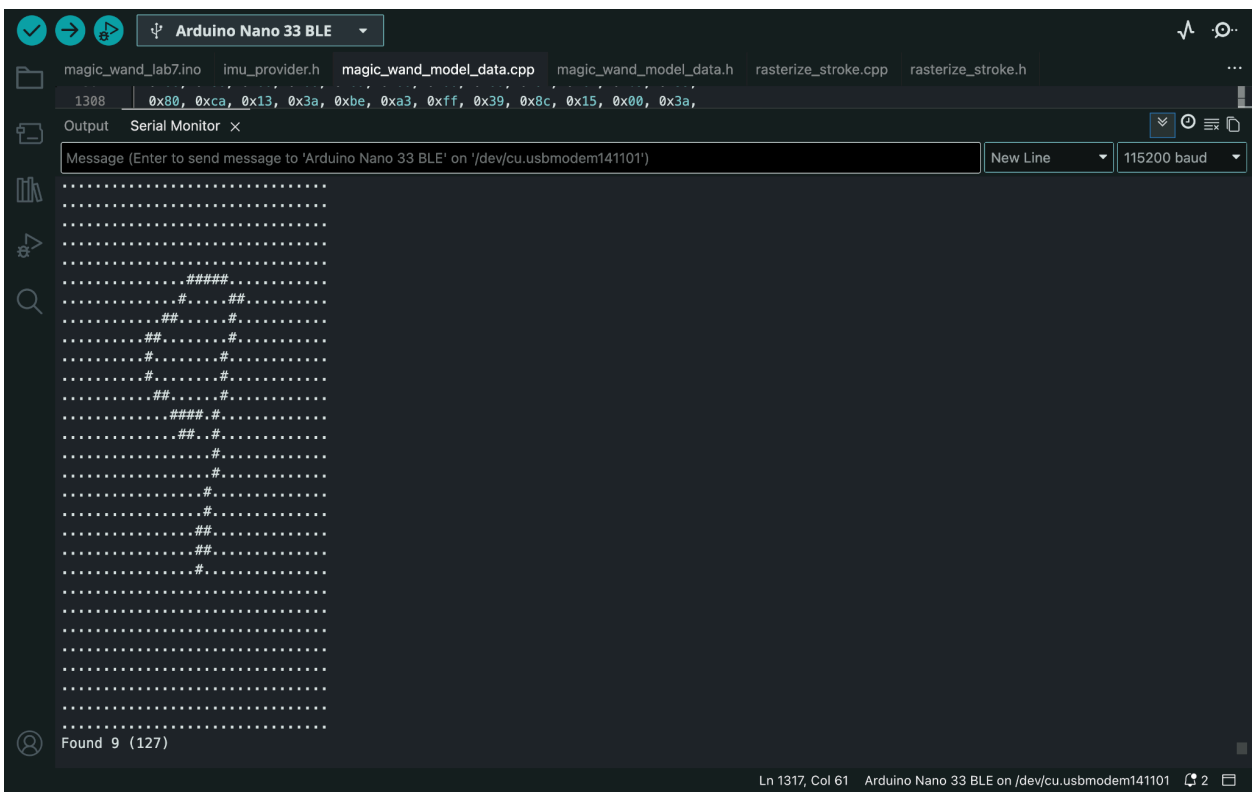
Arduino Nano 33 BLE on /dev/cu.usbmodem141101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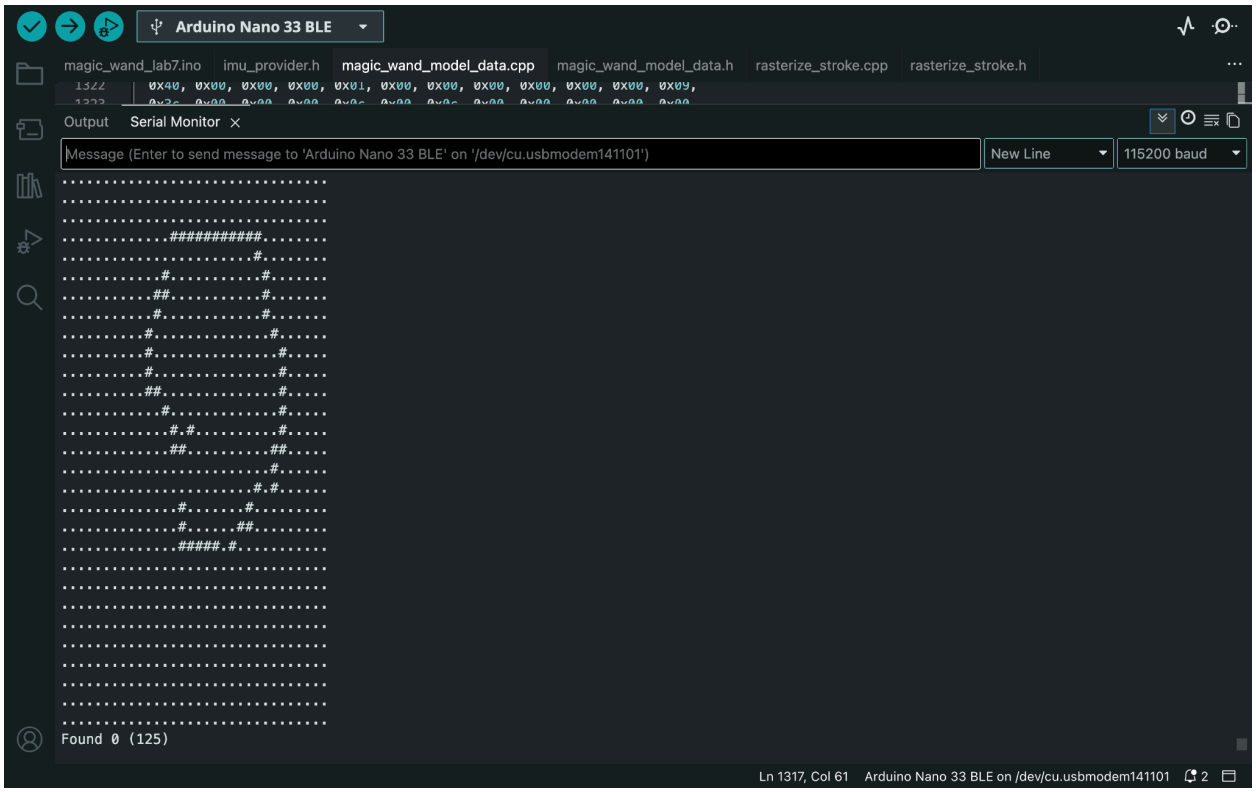
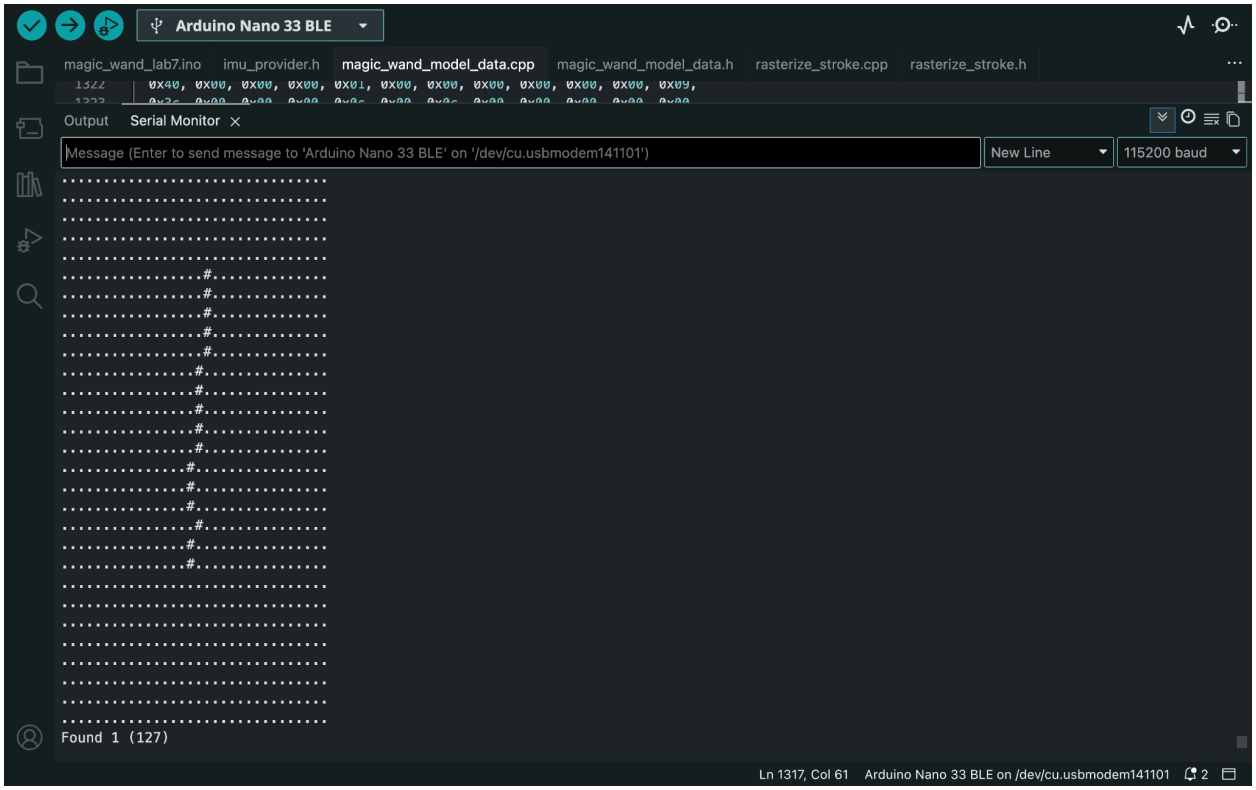
Arduino Nano 33 BLE on /dev/cu.usbmodem141101

Finetuned model

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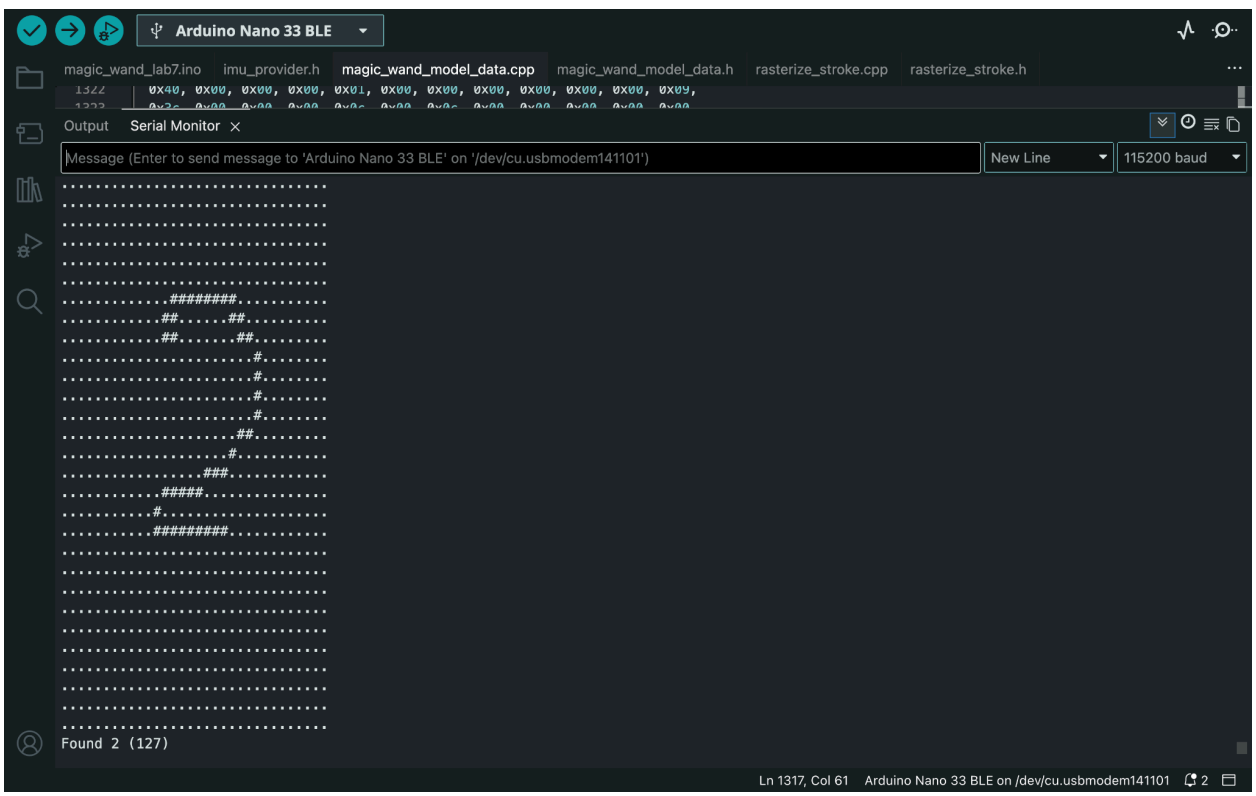
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rasterize_stroke.cpp
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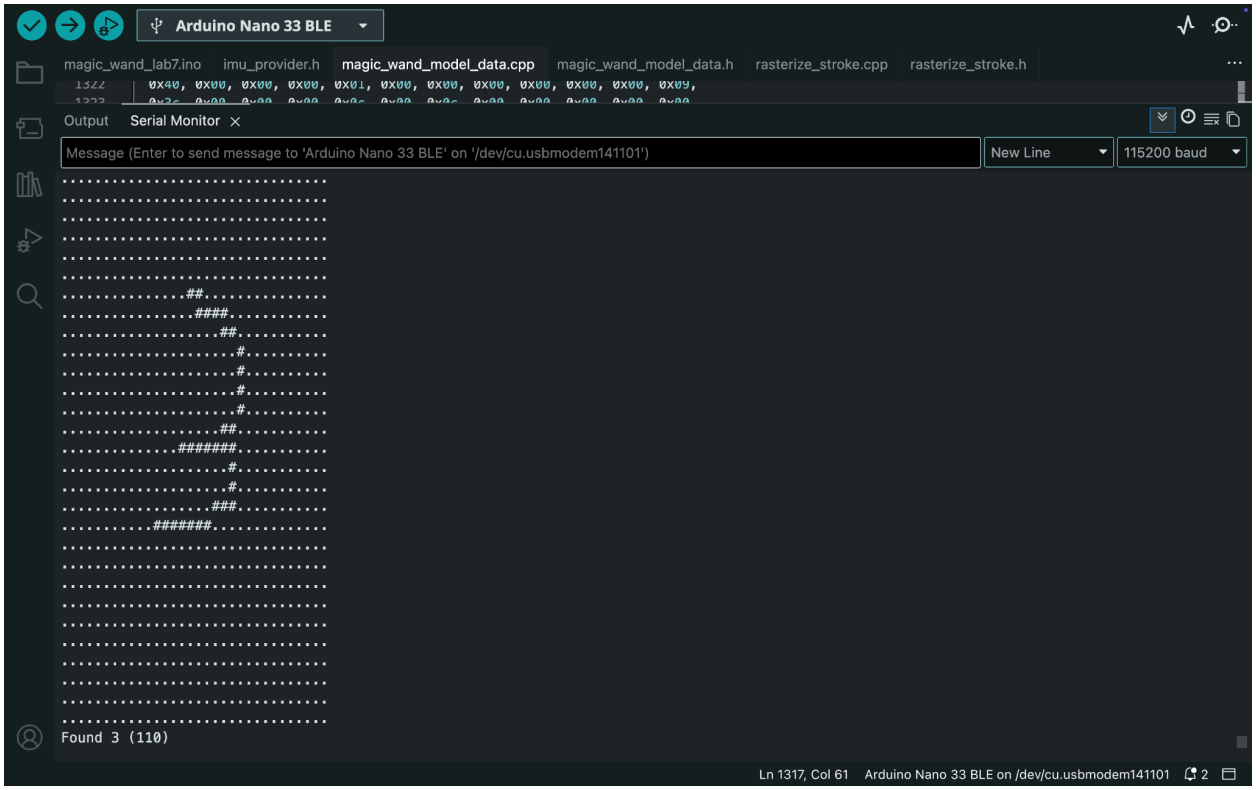
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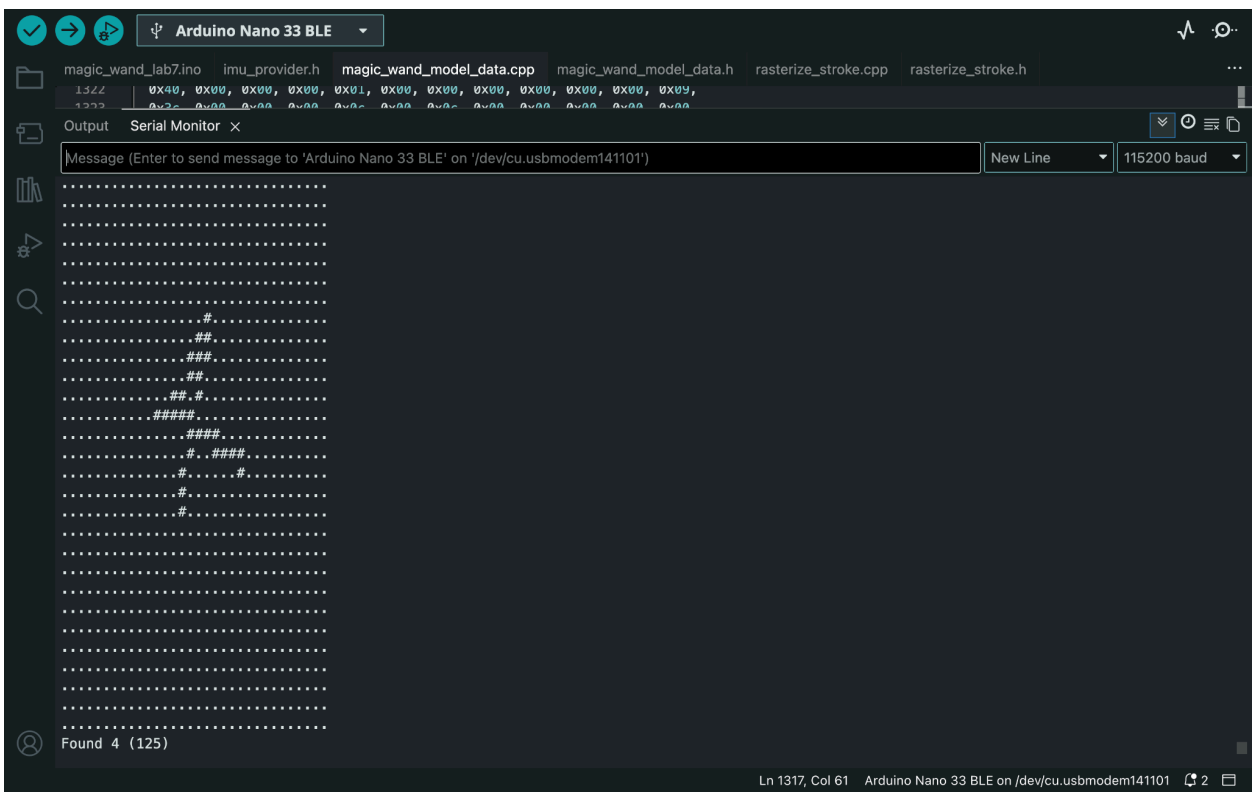
Arduino Nano 33 BLE on /dev/cu.usbmodem141101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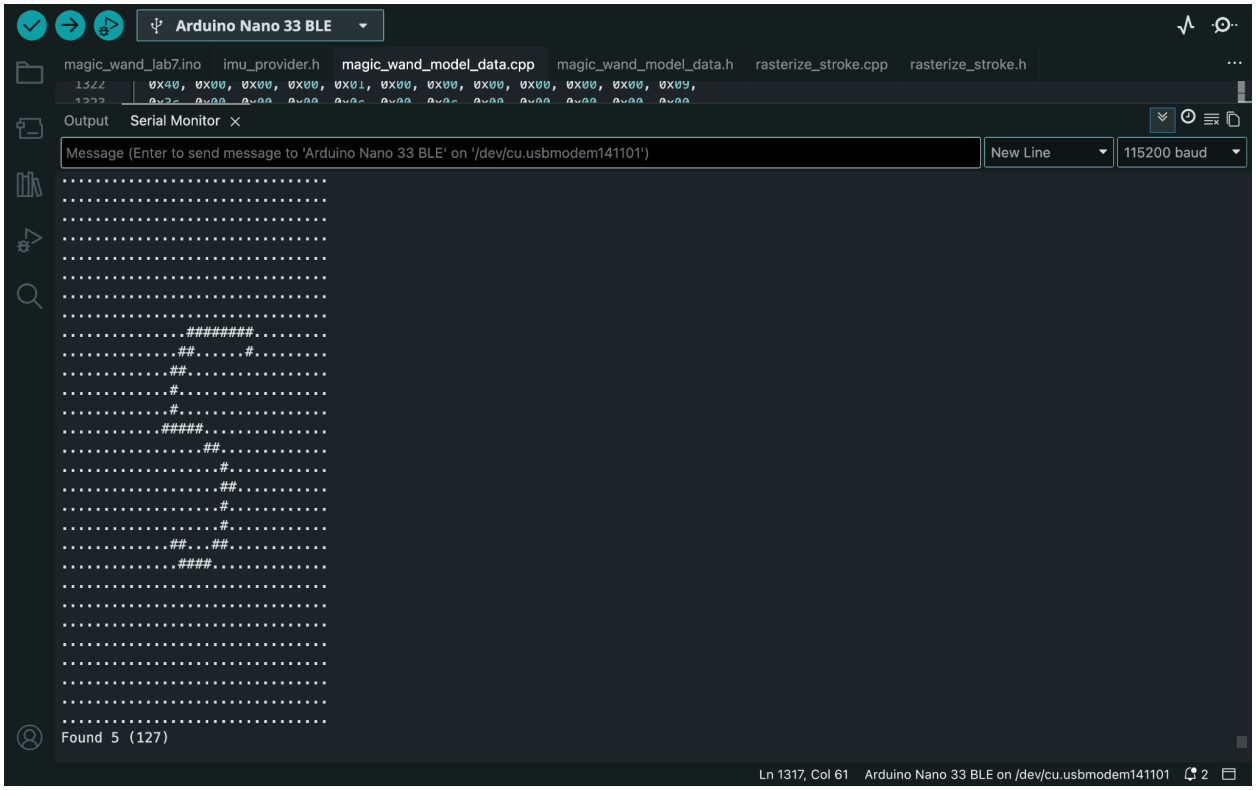
Arduino Nano 33 BLE
magic_wand_lab7.ino
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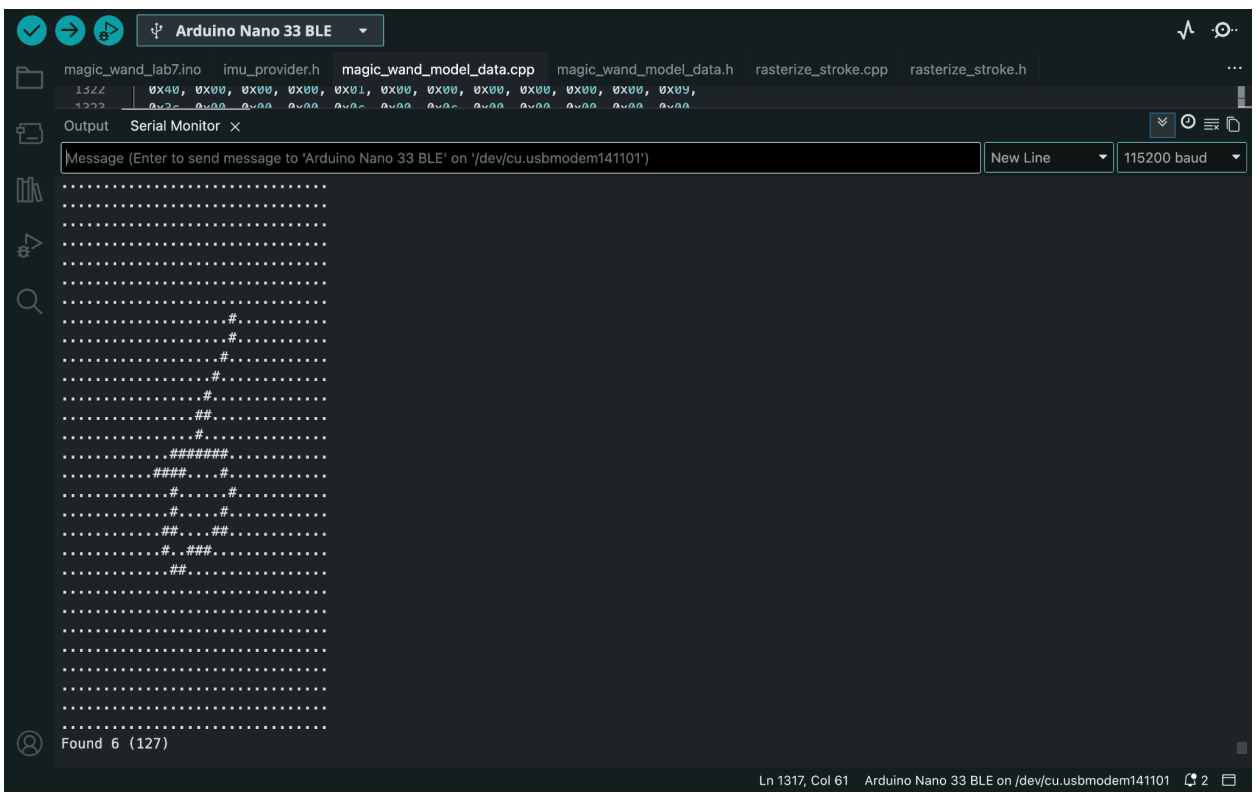
Arduino Nano 33 BLE on /dev/cu.usbmodem141101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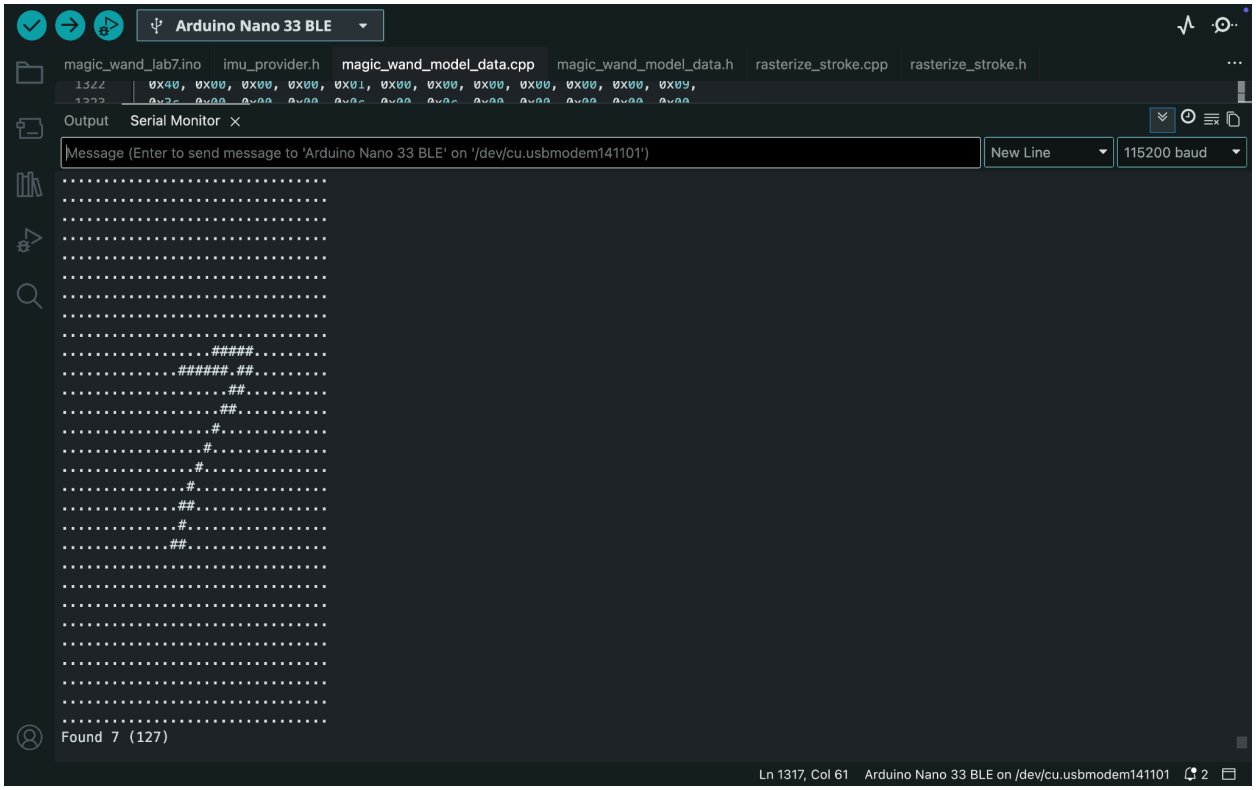
Arduino Nano 33 BLE on /dev/cu.usbmodem141101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magic_wand_lab7.ino
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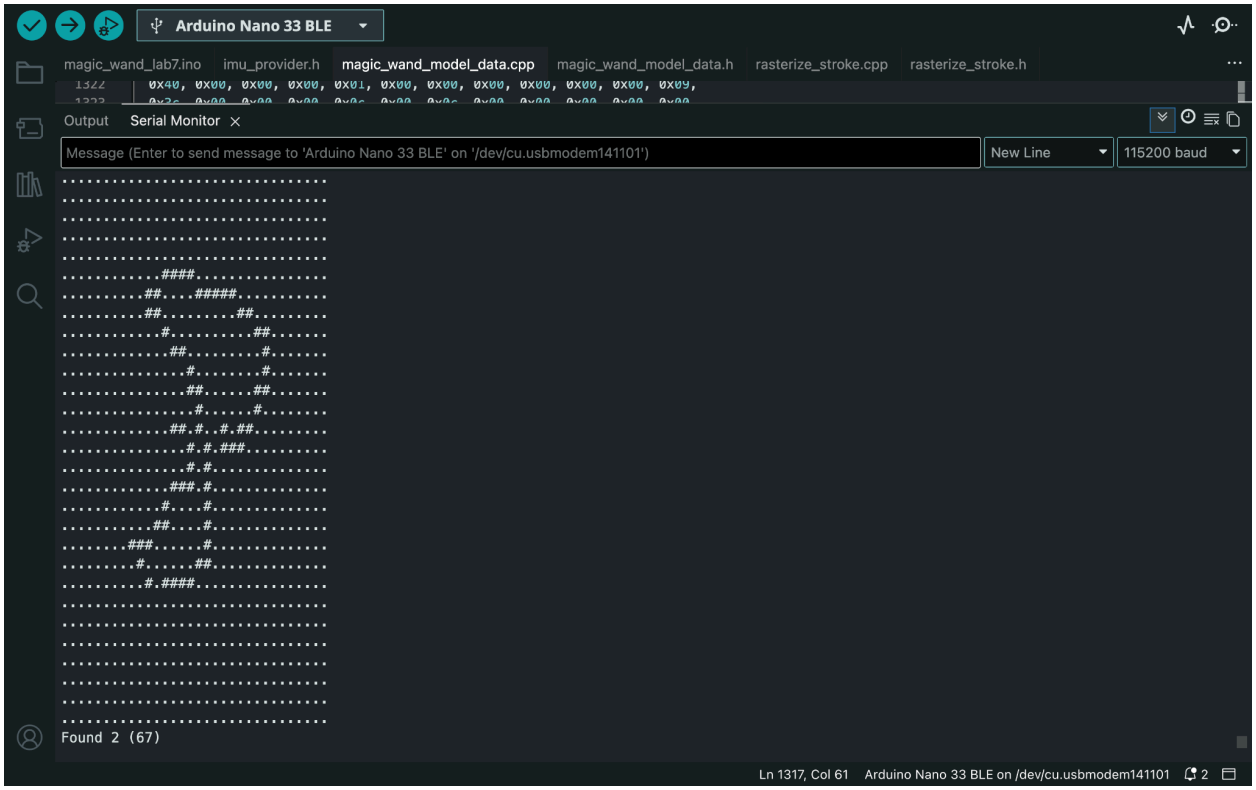
Arduino Nano 33 BLE on /dev/cu.usbmodem141101


Arduino Nano 33 BLE
magic_wand_lab7.ino
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Found 2 (67)
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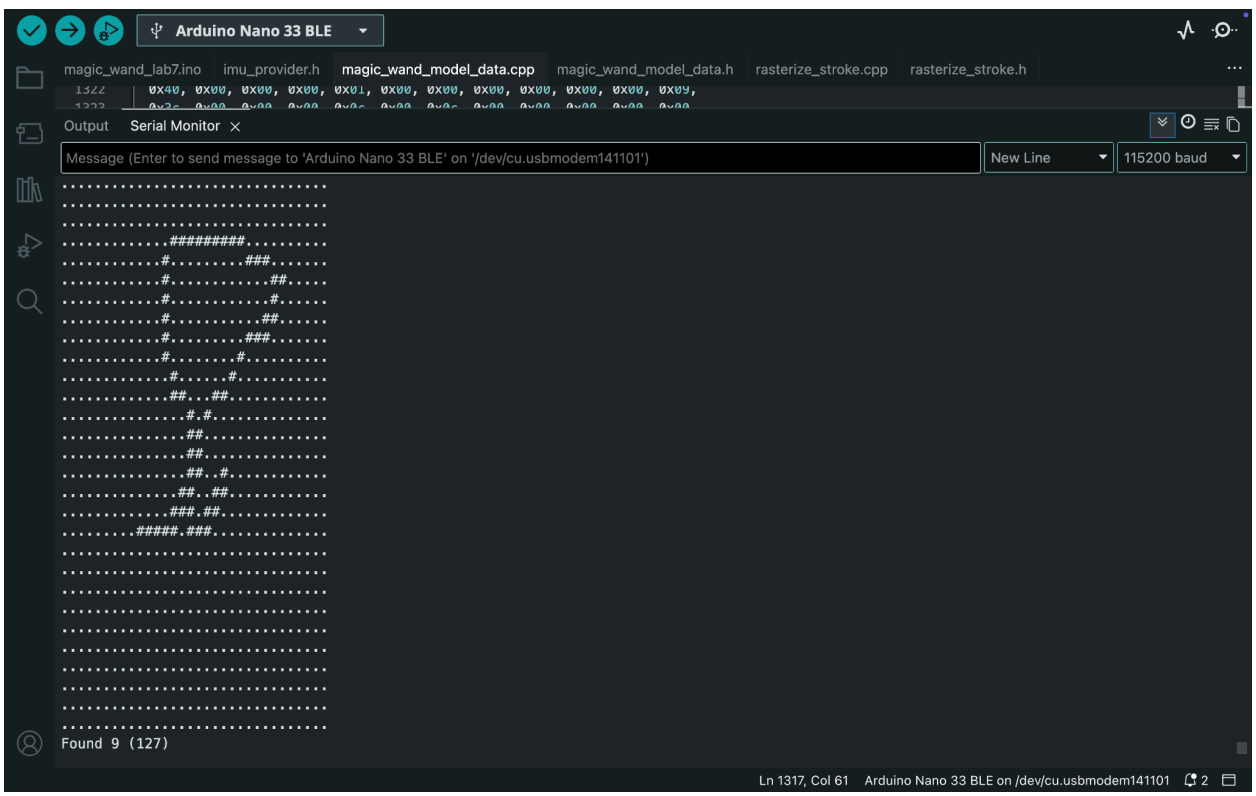
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magic_wand_lab7.ino
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Arduino Nano 33 BLE on /dev/cu.usbmodem141101