



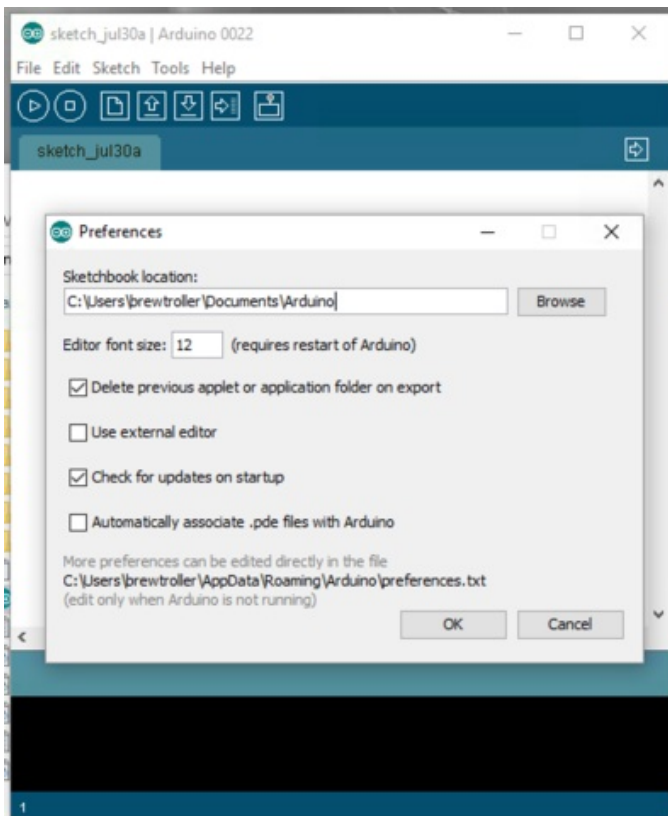
## 1284 Firmware Upload via IDE

The first 2 batches of BrewTroller Phoenix boards shipped with the ATMEGA 1284 chip instead of the ATMEGA 1284p chip. This, functionally, doesn't make a difference, but the 0022 IDE (Custom IDE Package) is not able to upload to this board. To counteract this issue, you have 2 options.

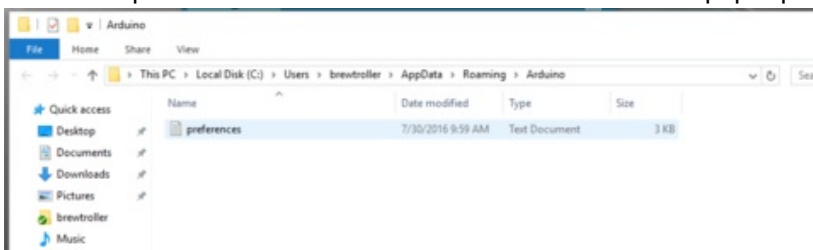
1. Use the BrewTroller Update Utility (Coming soon)
2. Use the 0022 IDE with the following extra steps

Follow these steps and you will be able to upload your custom firmware to the BrewTroller

1. Download a "fresh" version of the 0022 IDE (windows only)
2. Install AVRDUDE (instructions on LadyAda's website [here](#))
3. Open the 0022 IDE you installed
4. Click File>Preferences



5. Locate the preferences file at the bottom of the window that pops up. You can click it to open the folder



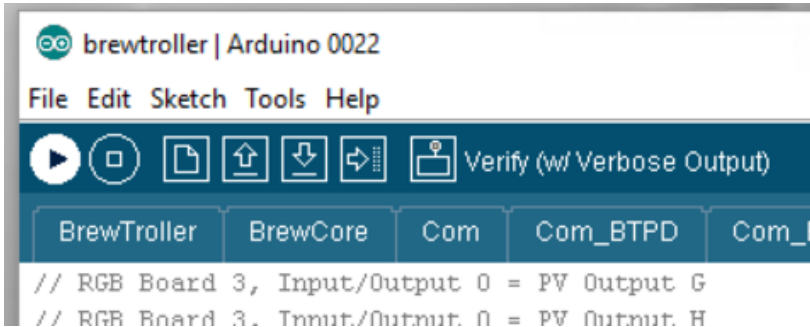
6. Edit this file, and look for the build.verbose line and change it to true

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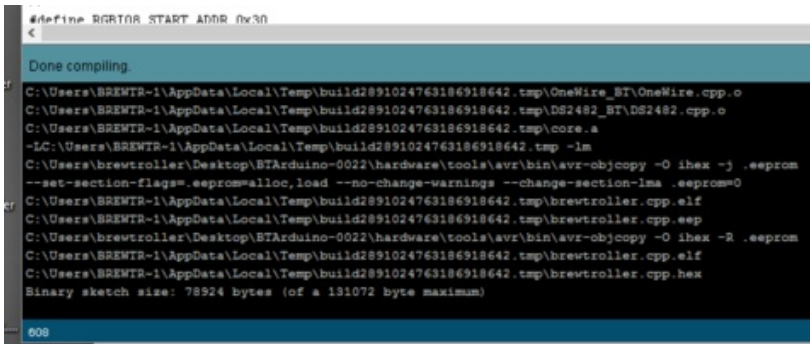
console.auto_clear=true
update.last=1460686039992
build.verbose=true
editor.window.width.min=400
run.present.exclusive=false
export.application.platform.1

```

- Now you can open the firmware as normal and make whatever changes you want. Once you have made those changes, click the verify button (looks like a play button) to build the hex file you will need later



- Since you have enabled Verbose output, you will see the location of the file in the box at the bottom of the IDE. You are looking for brewtroller.cpp.hex or something similar



- Navigate to that folder and copy the .hex file to your desktop. You may have to enable hidden folders to navigate here.
- Connect your BrewTroller to your PC with a USB cable and power on the Brewtroller
- Now open a command window (Start>Run>cmd)
- Type the following command:

```
avrdude -c arduino -p m1284 -b 115200 -P \\.\COM12 -U flash:w:brewtroller.cpp.hex
```

You may need to change the \\.\COM12 part to match your setup

- Hit enter, and the firmware should upload to your board.

If you are using a MAC or Linux machine, these instructions will not work. The 0022 IDE will not work on a MAC and will throw some compile errors that we are unable to fix. Linux has not been tested, but the avrdude command would be different.

If you need any more help with this, email us or post on the forums and Facebook group! I hope this helps!

