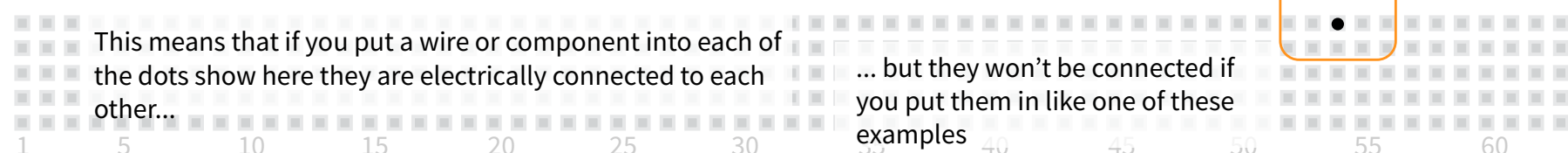
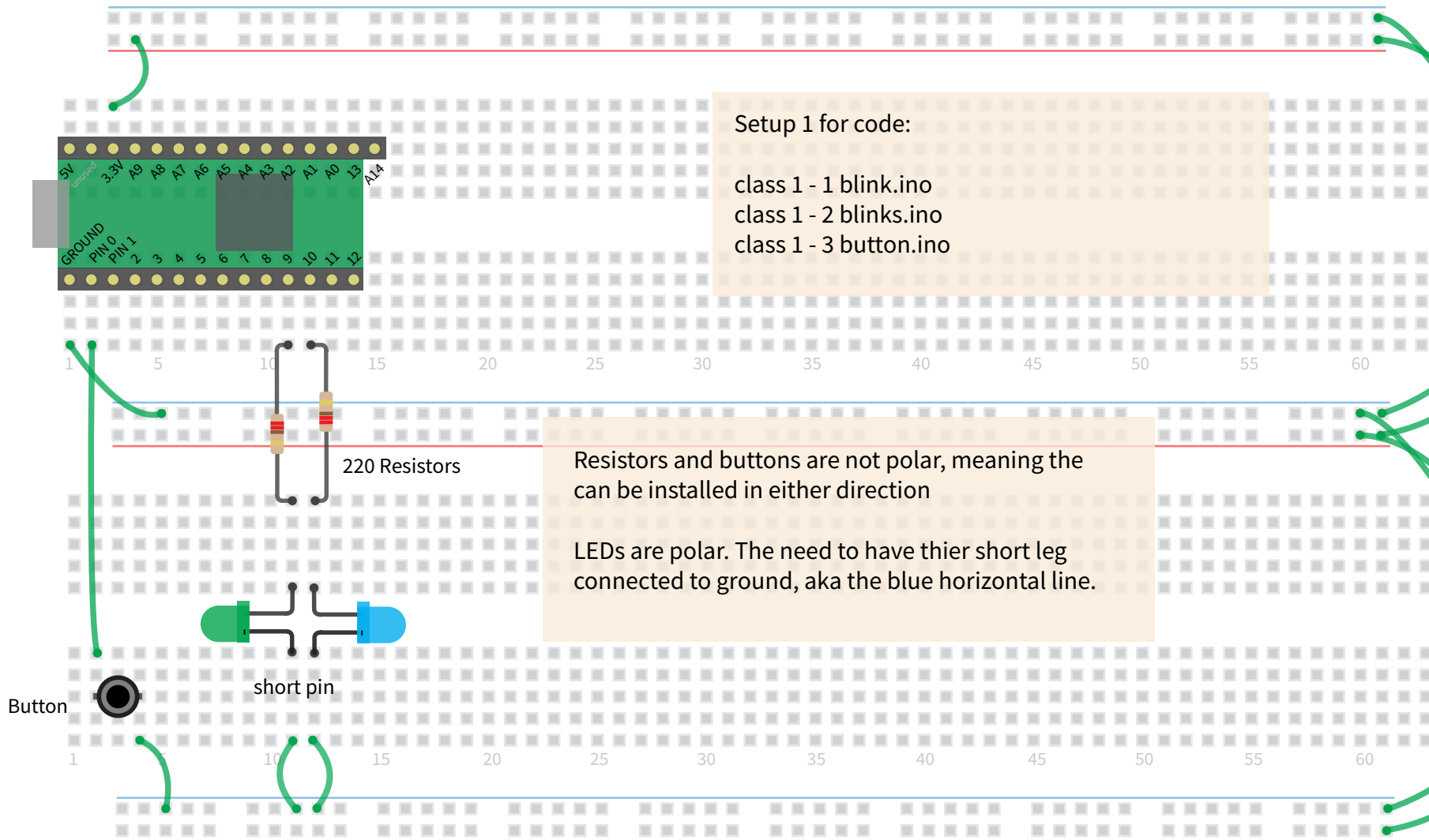


The holes on a breadboard are connected as show with the colored lines.
The vertical strips on either side of the central gap are connected in groups of five.
The horizontal red and blue “bus” lines are connected all the way across the board.





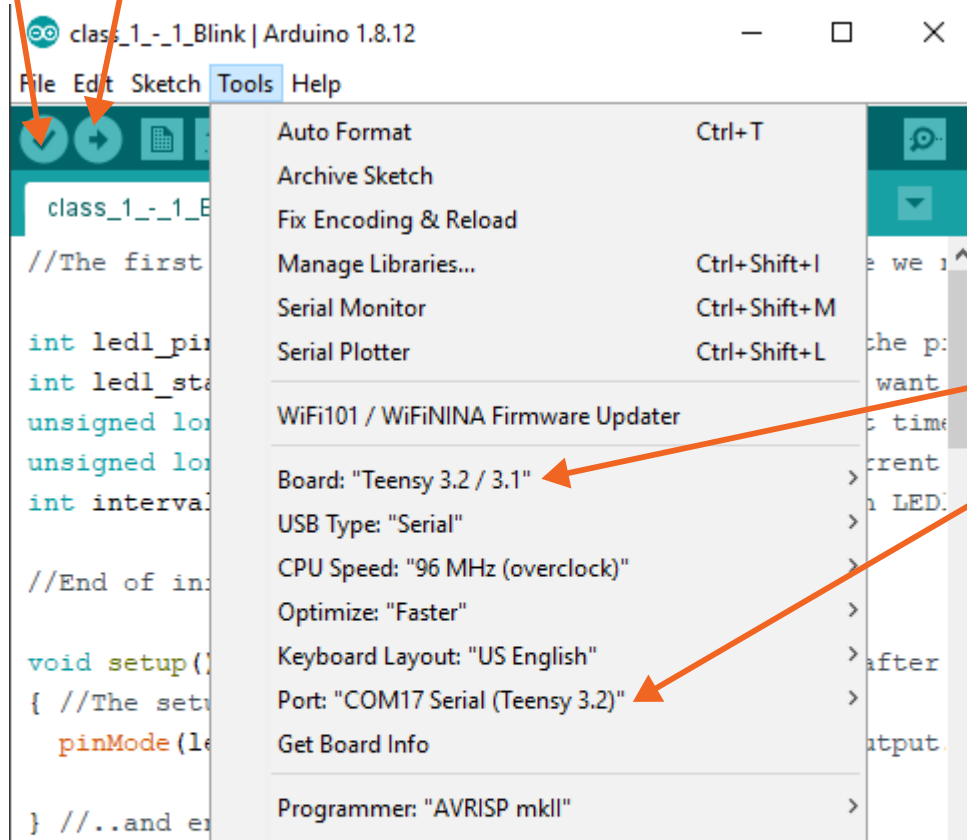
The Arduino IDE is how we'll code and communicate with the teensy

Verify

Check that the code doesn't have any errors and can compile but don't upload it.

Upload

Compile the code and put it on your device



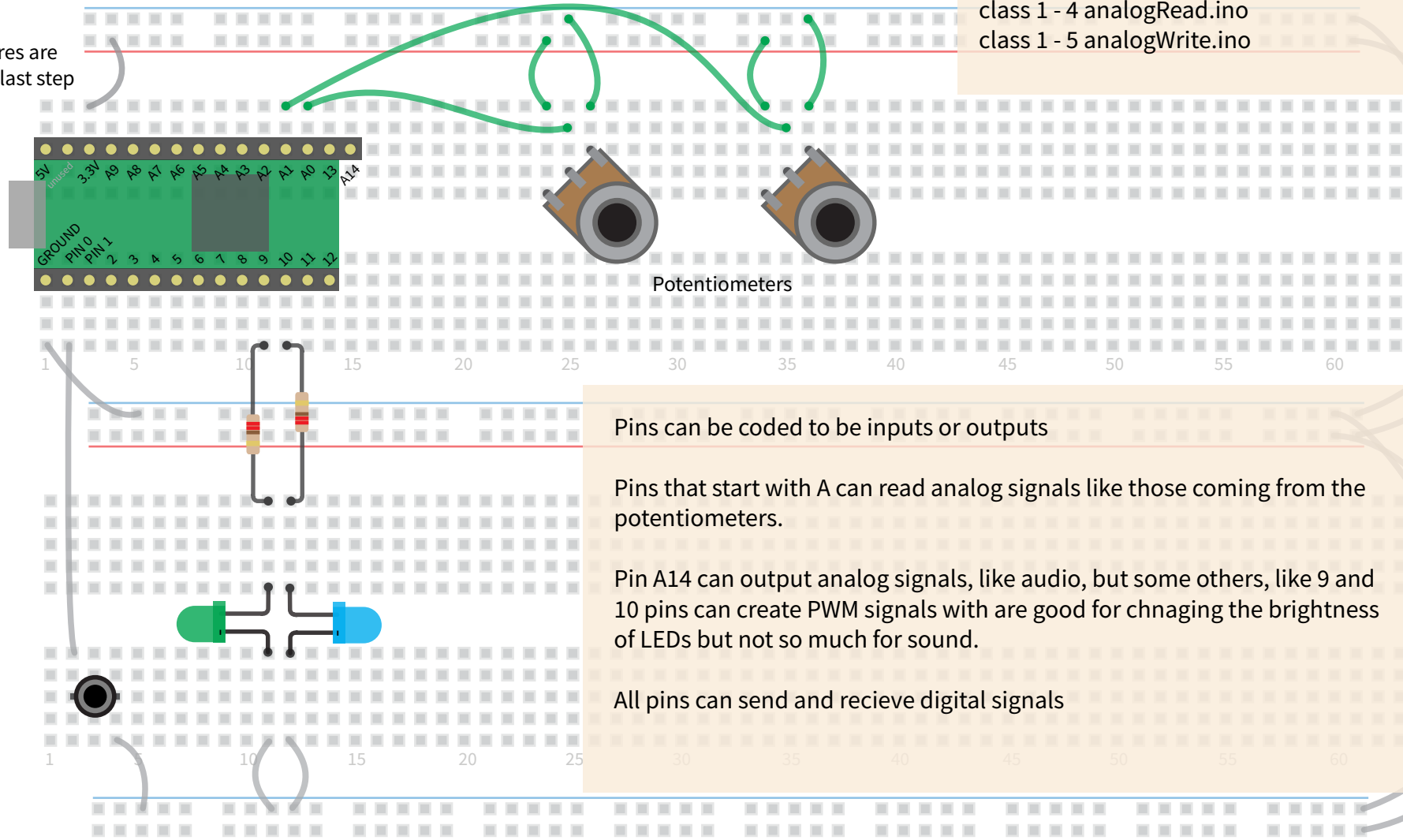
Before you can upload your code you must select the teensy board and the port it is connected to

Go to Tools and select Teensy 3.2/3.1 under board.

Plug your device in to USB and select whatever port shows "Teensy" on it.

You don't need to worry about the rest for now.

Grey wires are from the last step



Setup 2 for code:

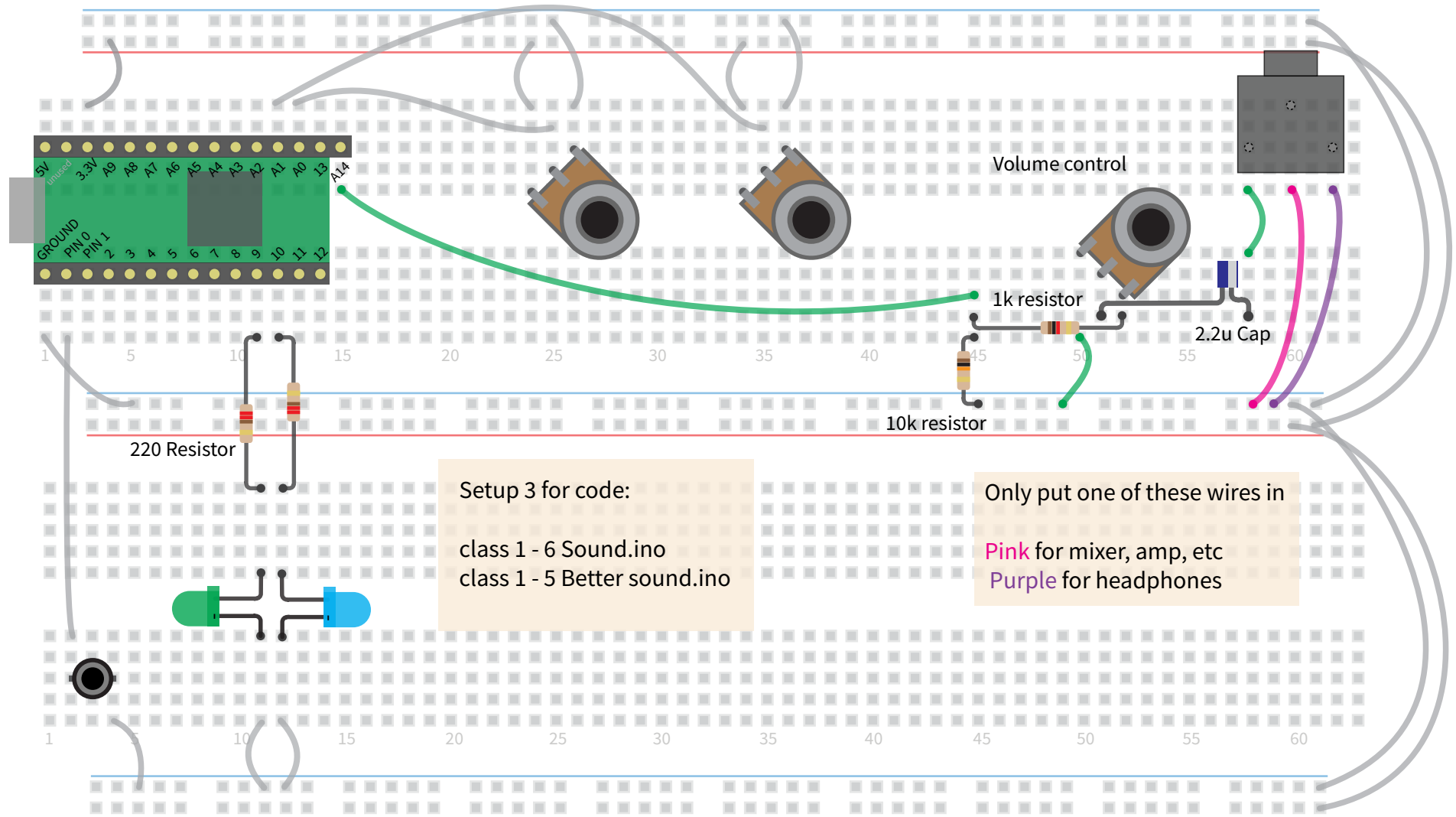
class 1 - 4 analogRead.ino
class 1 - 5 analogWrite.ino

Pins can be coded to be inputs or outputs

Pins that start with A can read analog signals like those coming from the potentiometers.

Pin A14 can output analog signals, like audio, but some others, like 9 and 10 pins can create PWM signals with are good for chnaging the brightness of LEDs but not so much for sound.

All pins can send and recieve digital signals



Arduino is a platform.

A programming environment, hardware, software, and a community.

We program devices compatible with the platform in the C language with lots of Arduino specific code libraries.

There is no operating system or anything like that. The code you upload is all there is.

The Teensy 3.2 device we use is based on a microprocessor chip that already existed. Paul Stoffregen of PJRC decided to make work with the Arduino platform and it's become one of the main Arduino devices people use due to its price, formfactor, and power. The original Arduino UNO is still a useful device though. It just can't do audio at near the level we will.

