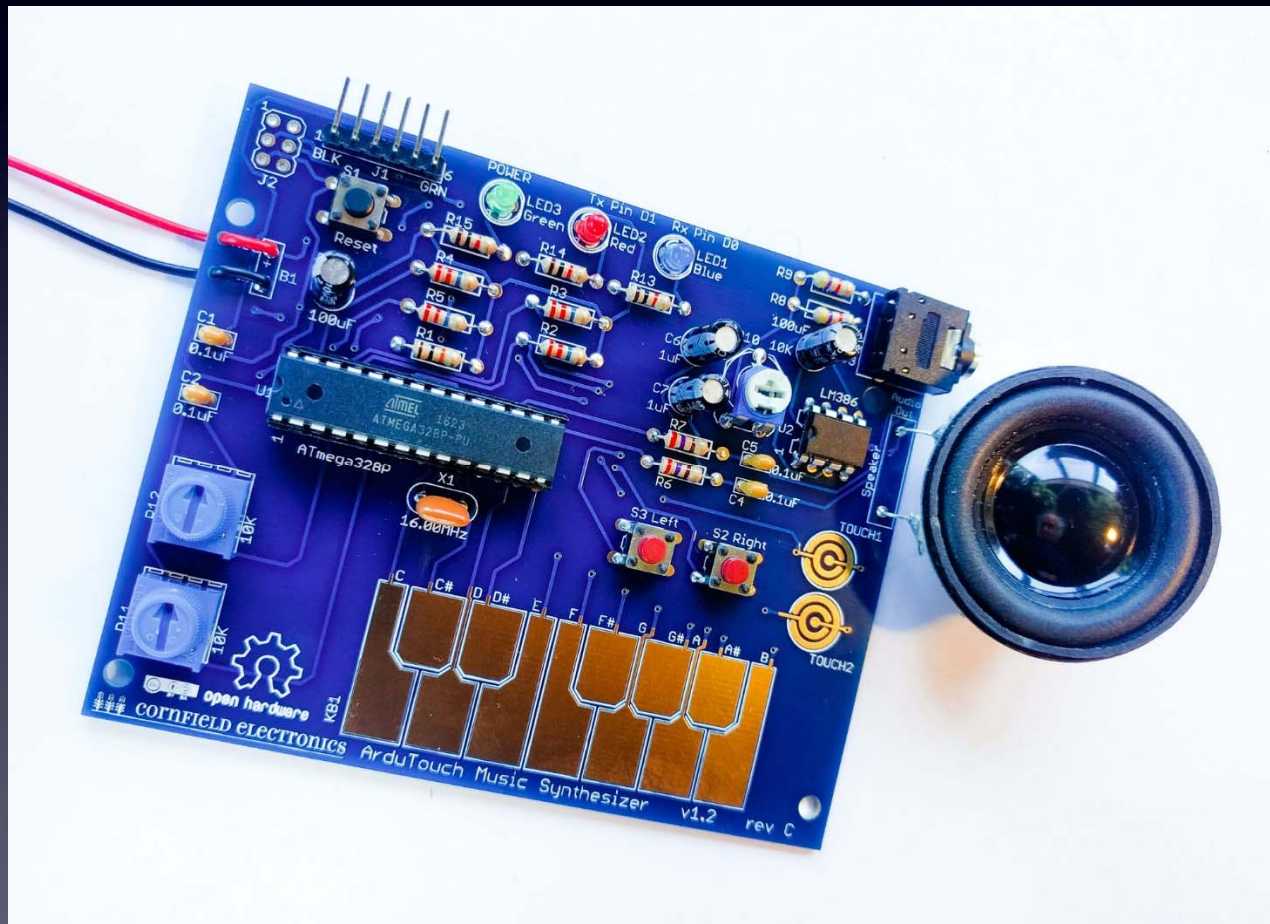


ArduTouch Music Synthesizer

Programming Guide



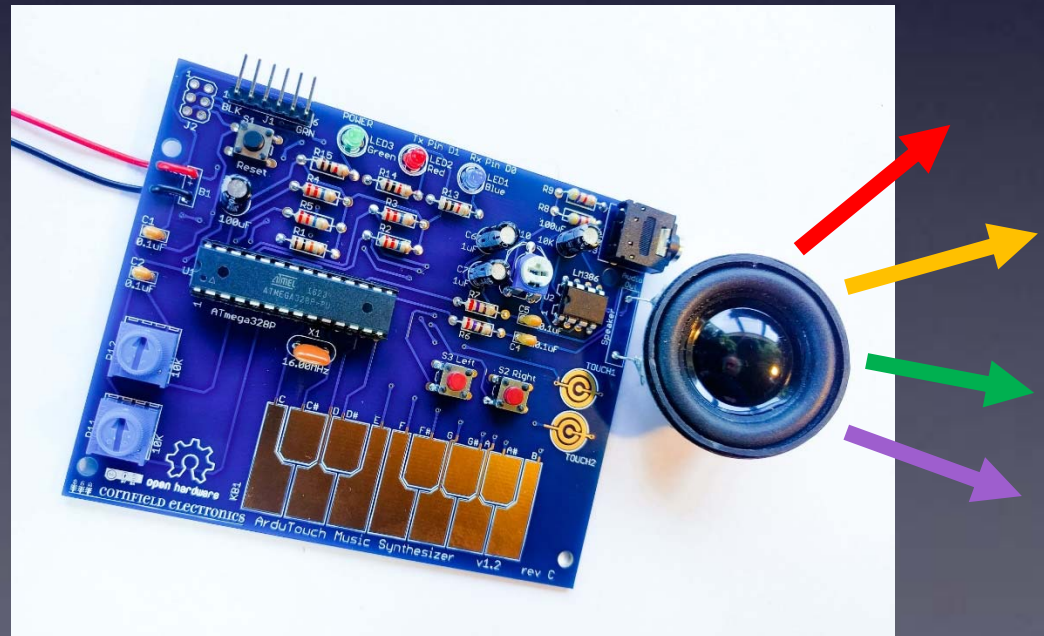
rev C

Let's make noise!

Your ArduTouch comes pre-programmed with a really cool synthesizer, called “Thick”.

“Thick” plays 4 sawtooth waves at once.

- the left and right buttons change octaves
- long press the left and right buttons to change sounds
- the Bottom knob controls the glide rate
- the Top knob controls how each of the 4 notes glide separately
- Try playing with these and see!

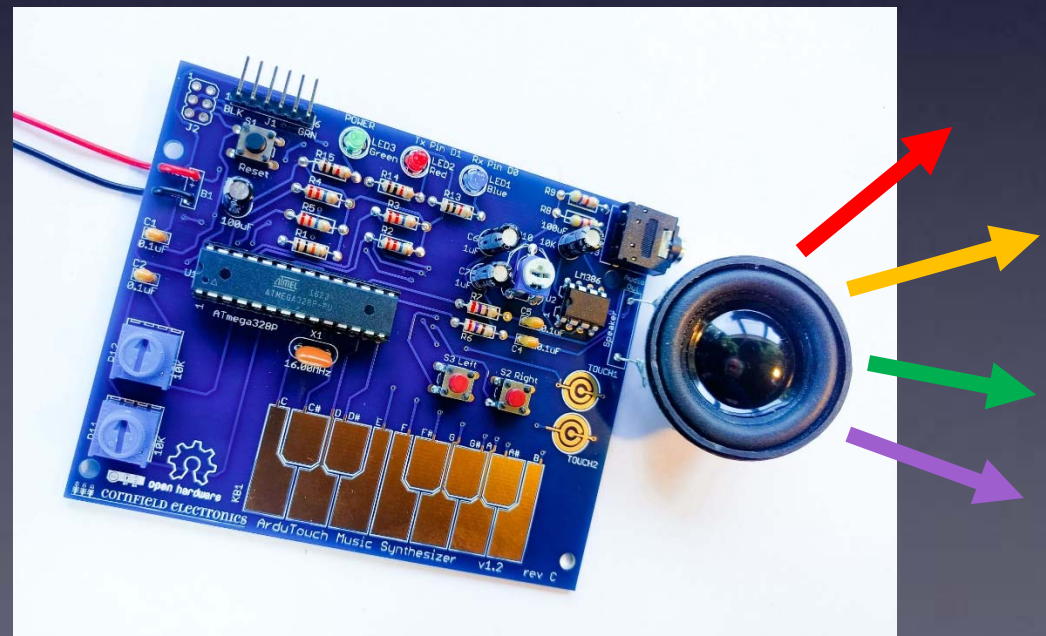


Let's make noise!

Your ArduTouch comes pre-programmed with a really cool synthesizer, called “Thick”.

If you are happy playing with “Thick” then no need to re-program your ArduTouch.

But if you want to program other synths into your ArduTouch, the next pages show you how...

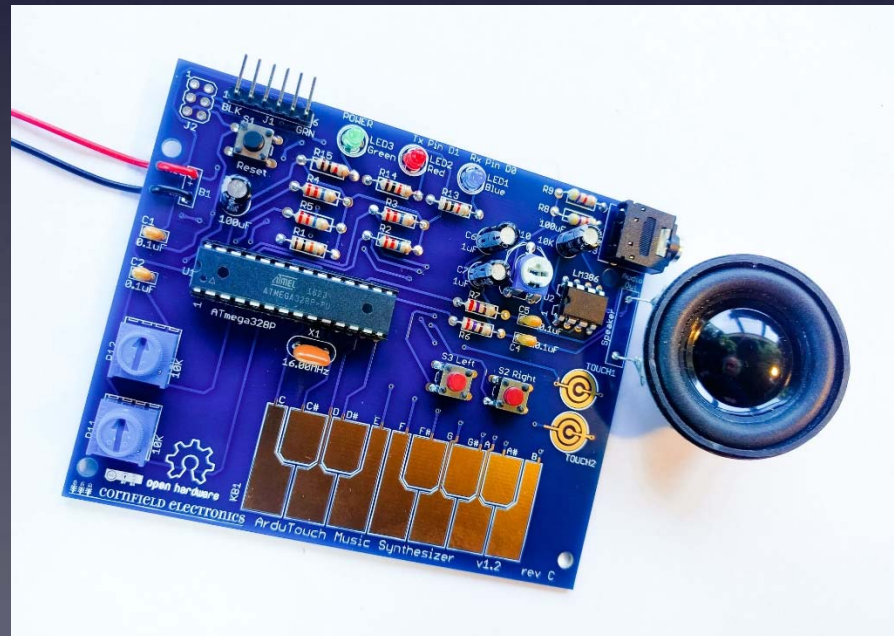


Re-programming the ArduTouch

We have written several way cool synthesizers for ArduTouch!
Each is unique, and each way different than the others.

To program in a new synth in your ArduTouch, you will need:

- the Arduino software <<http://arduino.cc>>
- a USB-Serial adapter cable (such as an FTDI, or equivalent)
- a synth sketch and the ArduTouch Arduino library
<<http://cornfieldelectronics.com/cfe/projects.php#ardutouch>>



Arduino

Arduino is a very powerful tool!

But it is very easy to use.

It was designed for total beginners to use successfully.

I won't give a complete tutorial here – just some basics.

For more info, there are many good Arduino tutorials online.

A good place to start is:

<<https://www.arduino.cc/en/Tutorial/HomePage>>



Arduino

First:
Download and install the Arduino software
< <http://arduino.cc> >



Re-programming the ArduTouch

Second:

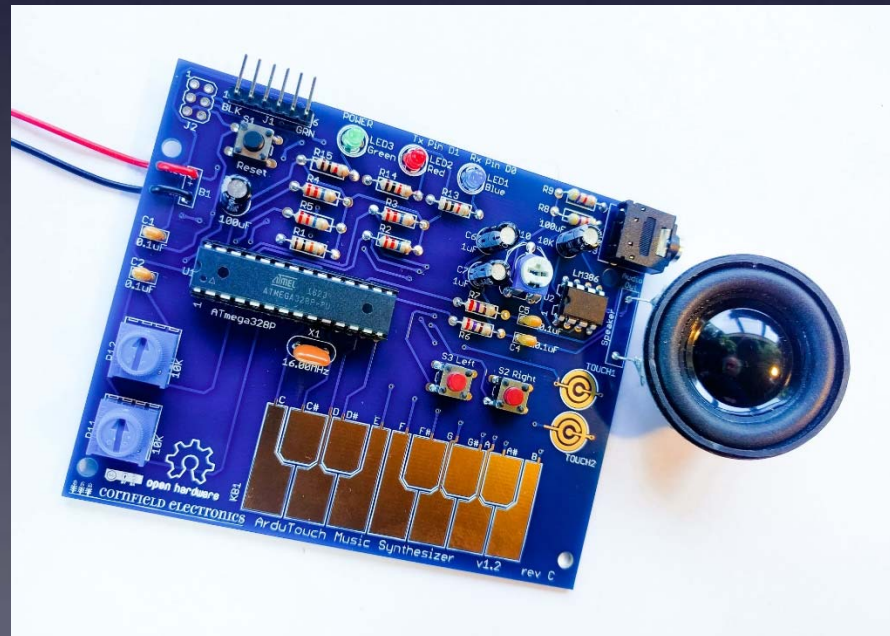
**Download and install the ArduTouch Arduino library
<<http://cornfieldelectronics.com/cfe/projects.php#ardutouch>>**

Instructions for installing a .zip library are at:

< <https://www.arduino.cc/en/Guide/Libraries>>

Scroll down till you see the section:

“Importing a .zip Library“



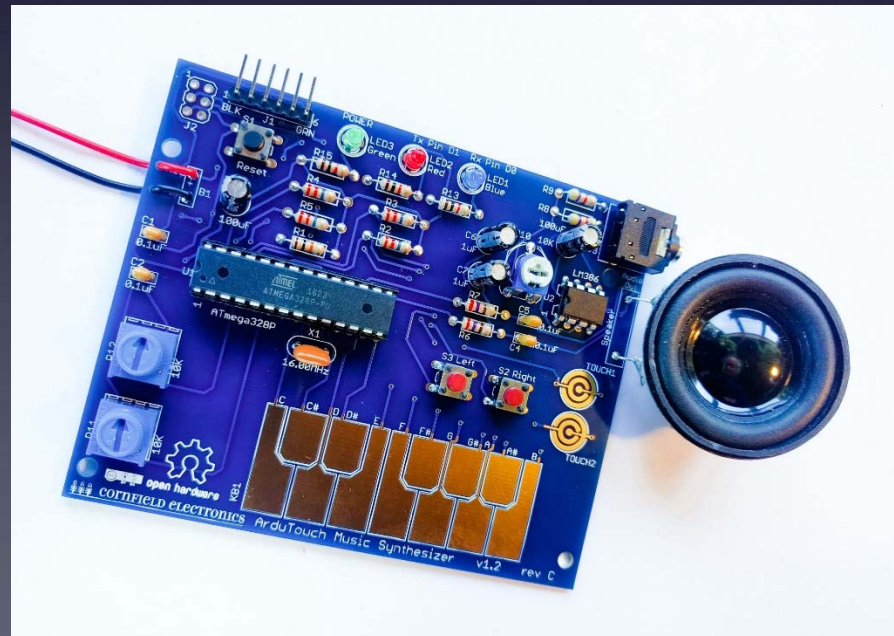
Re-programming the ArduTouch

Third:

Download ArduTouch synth sketches

<<http://cornfieldelectronics.com/cfe/projects.php#ardutouch>>

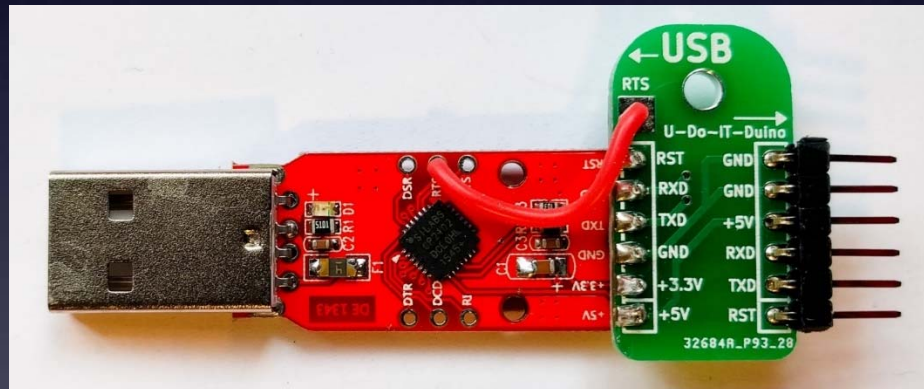
Store them on your computer anywhere you like.



to your computer

USB-Serial adapter cable

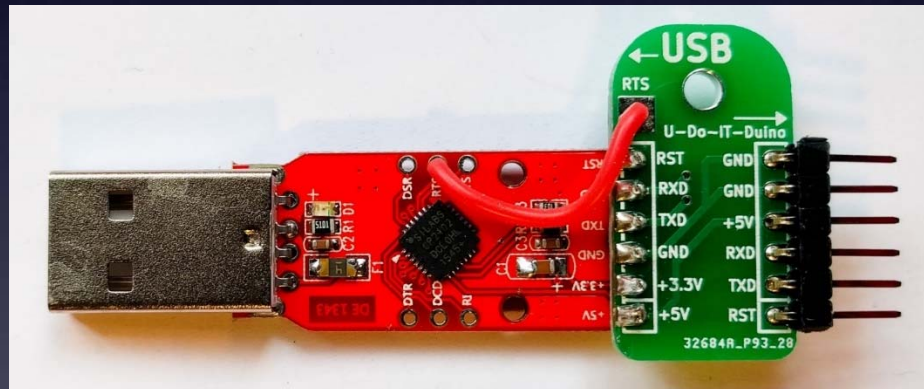
Ones I have available look something like this:



to your computer

USB-Serial adapter cable

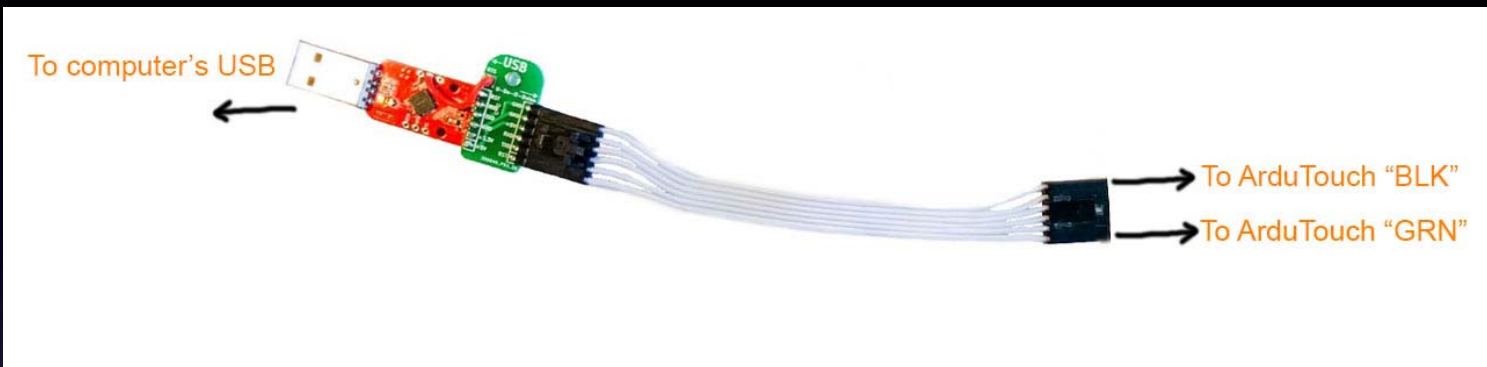
Ones I have available look something like this:



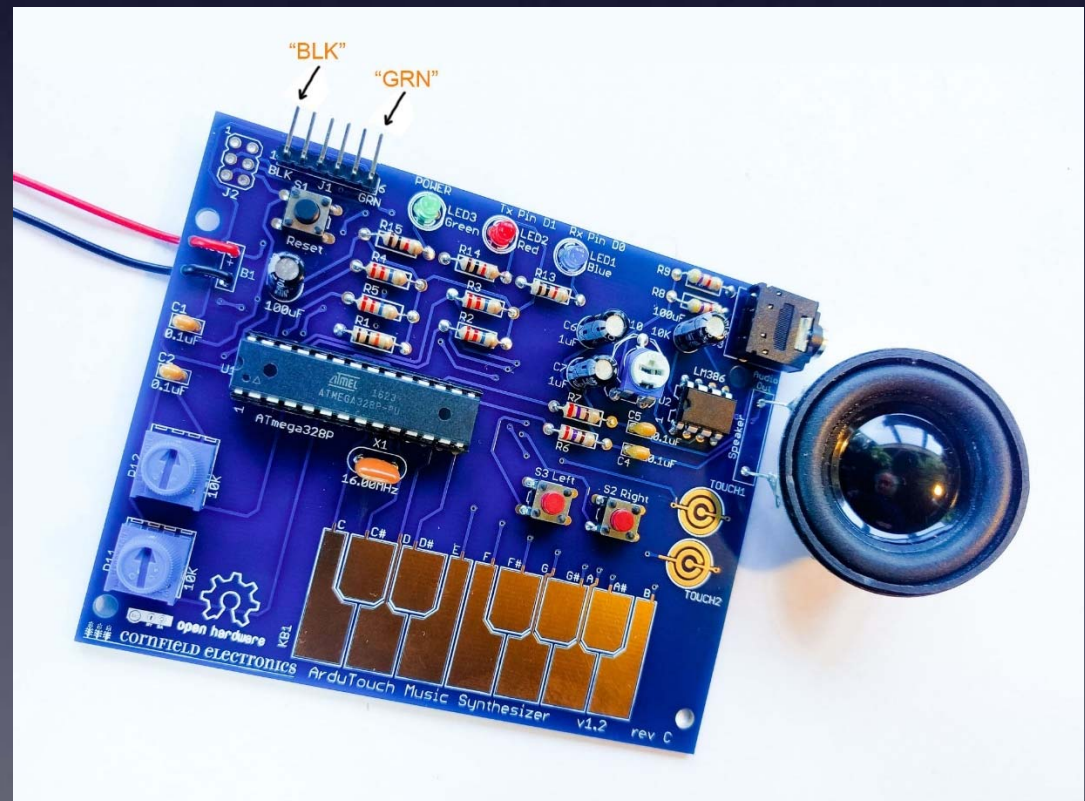
You will need to download and install a driver for your Operating System (Windows, MacOS, or Linux):

<https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers>

Connecting your ArduTouch to your computer

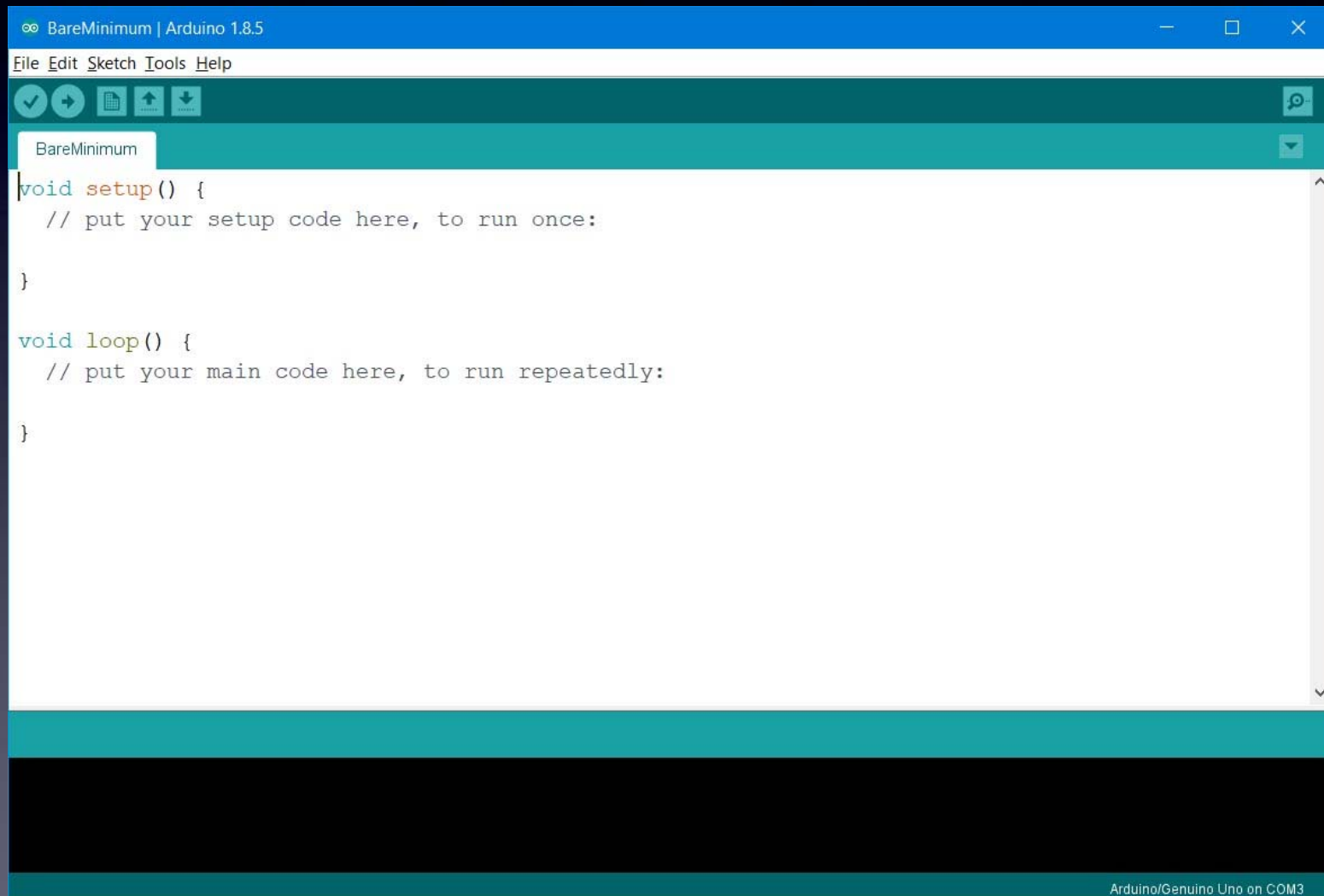


IMPORTANT:
Make sure the
battery pack on your
ArduTouch
is OFF



Arduino

After you download and install the Arduino software start it, and you will see a screen that looks like this:

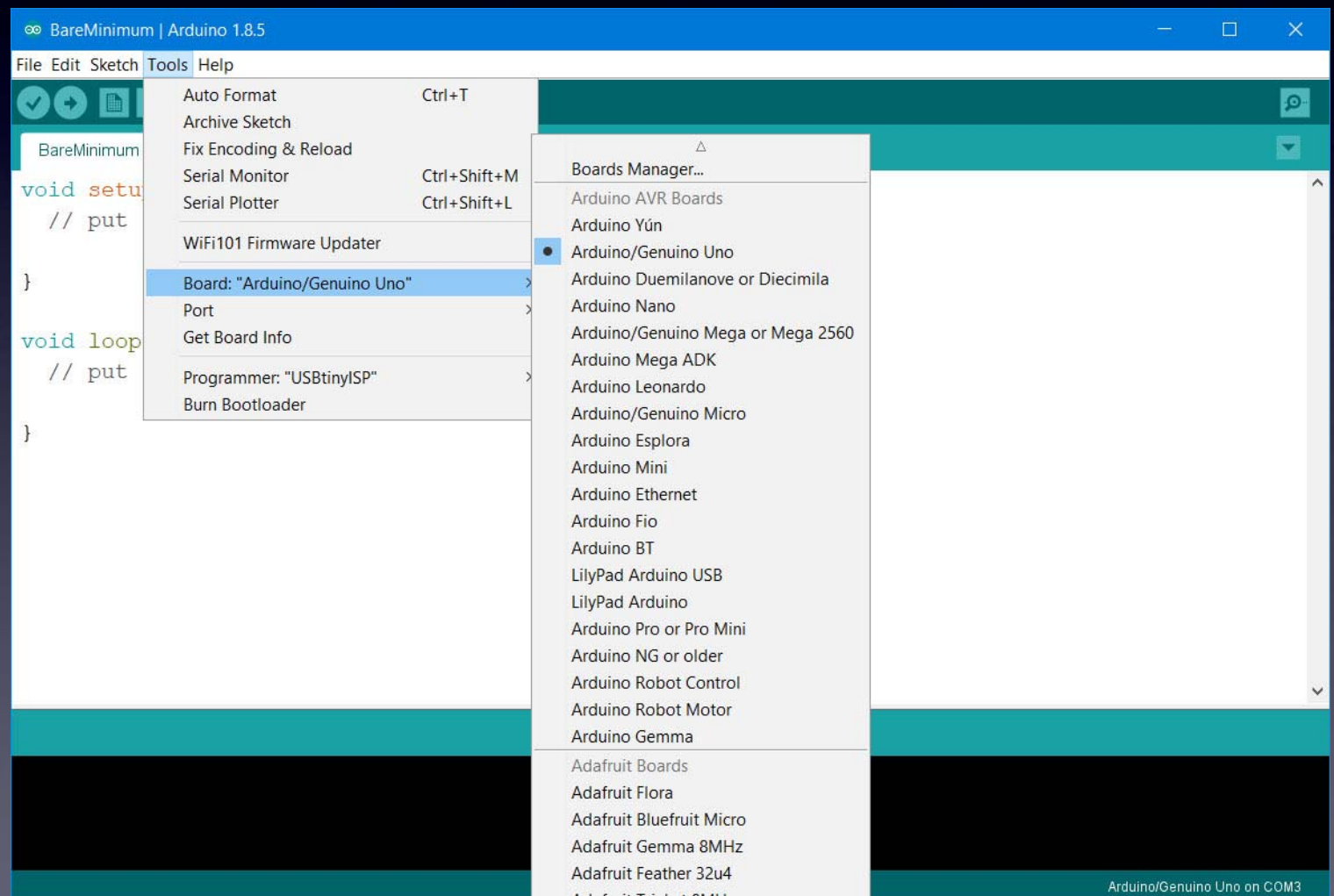


Arduino

The first time you start your Arduino software you need to do two things to set things up

(1)
Choose “Uno”
as the Board

(Your
ArduTouch board
acts
just like
an
Arduino Uno board)

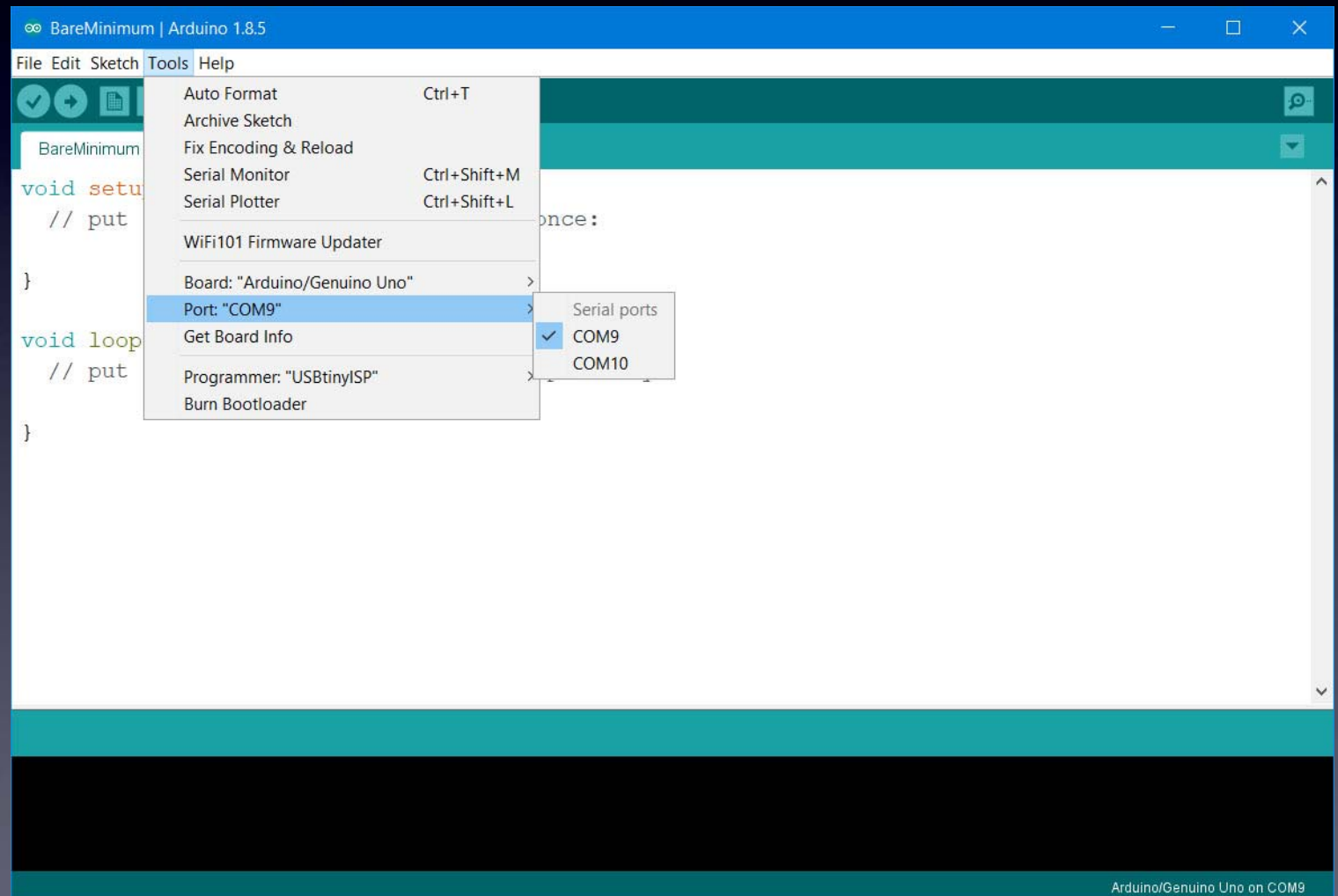


Arduino

The first time you start your Arduino software you need to do two things to set things up

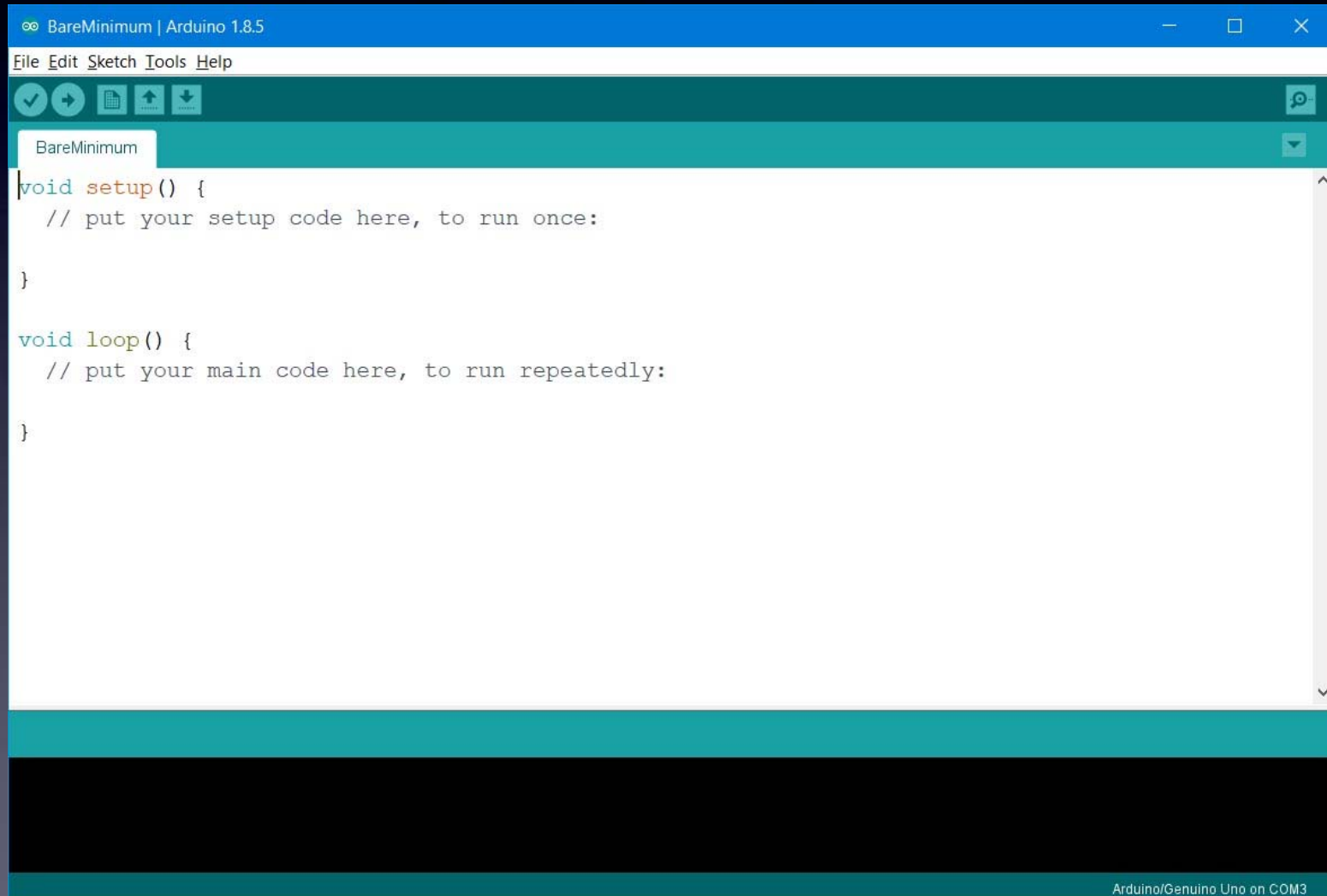
(2)
Choose
the Port
(this will be
different
depending on
your Operating
System)

(After installing
the driver
for your USB-Serial
cable
your operating system
will see a serial port
and it appears here.)



Arduino

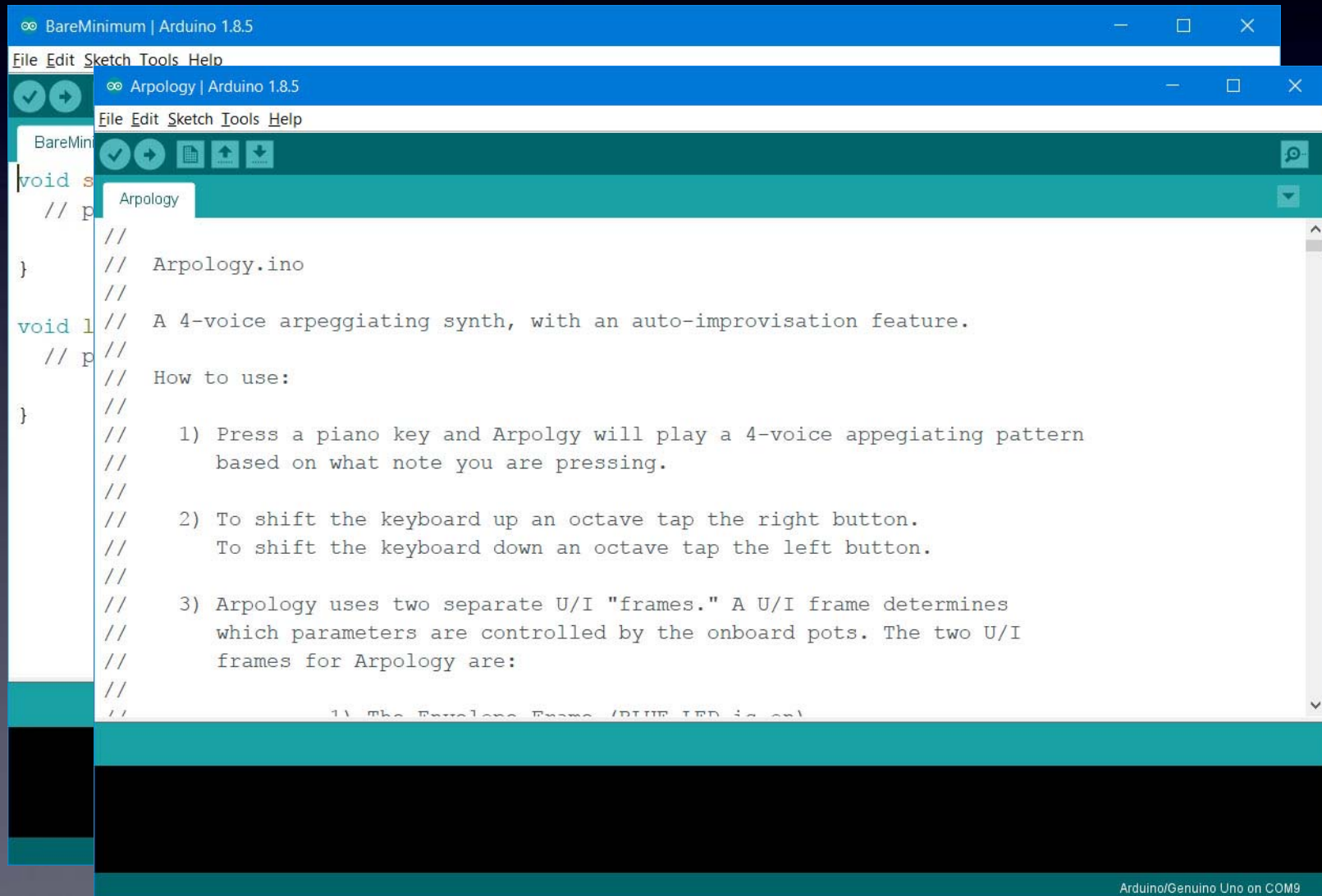
Your Arduino software is now ready to program your ArduTouch!



Arduino

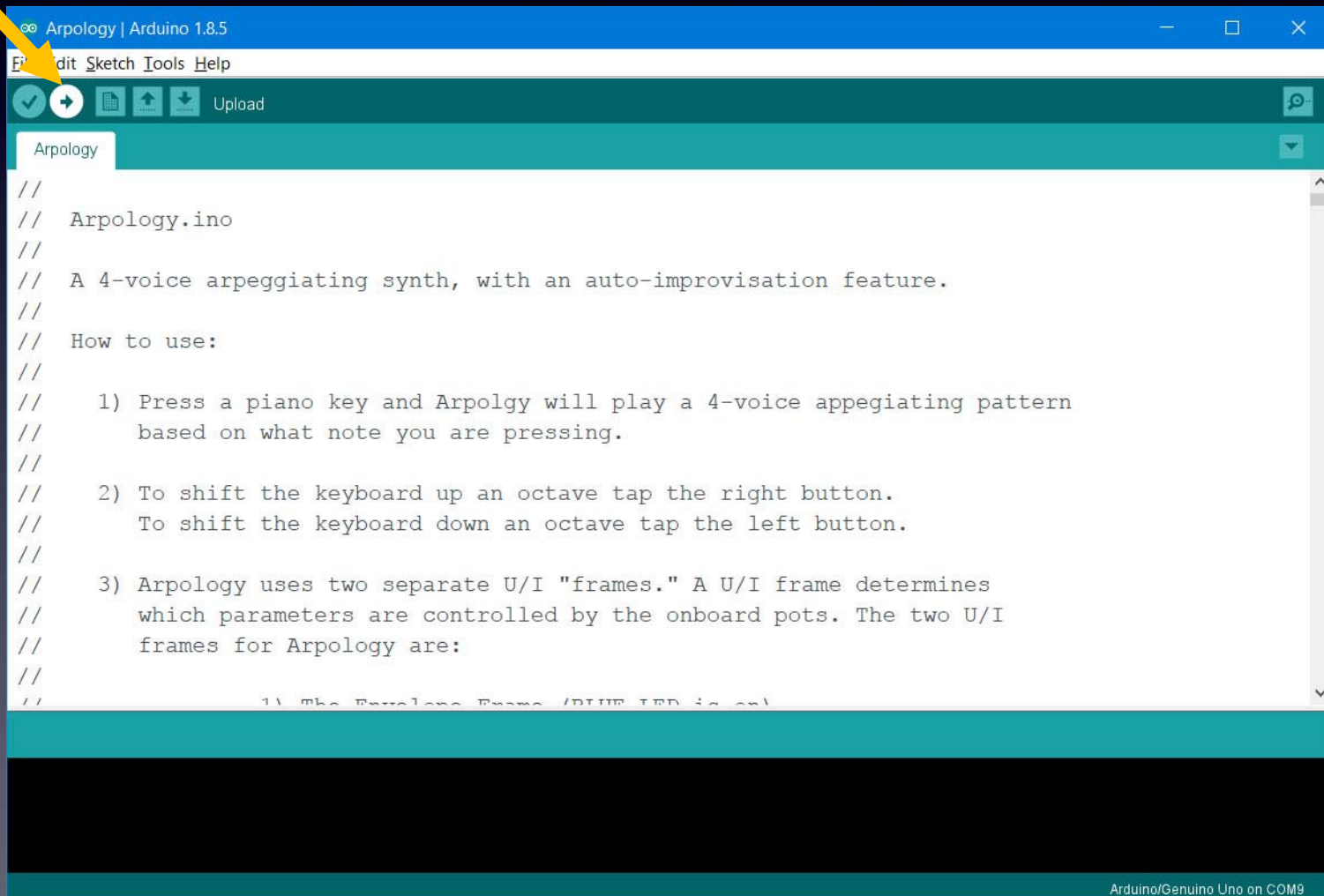
You can open an ArduTouch synth sketch from:
File → Open...

(I opened “Arpology here)



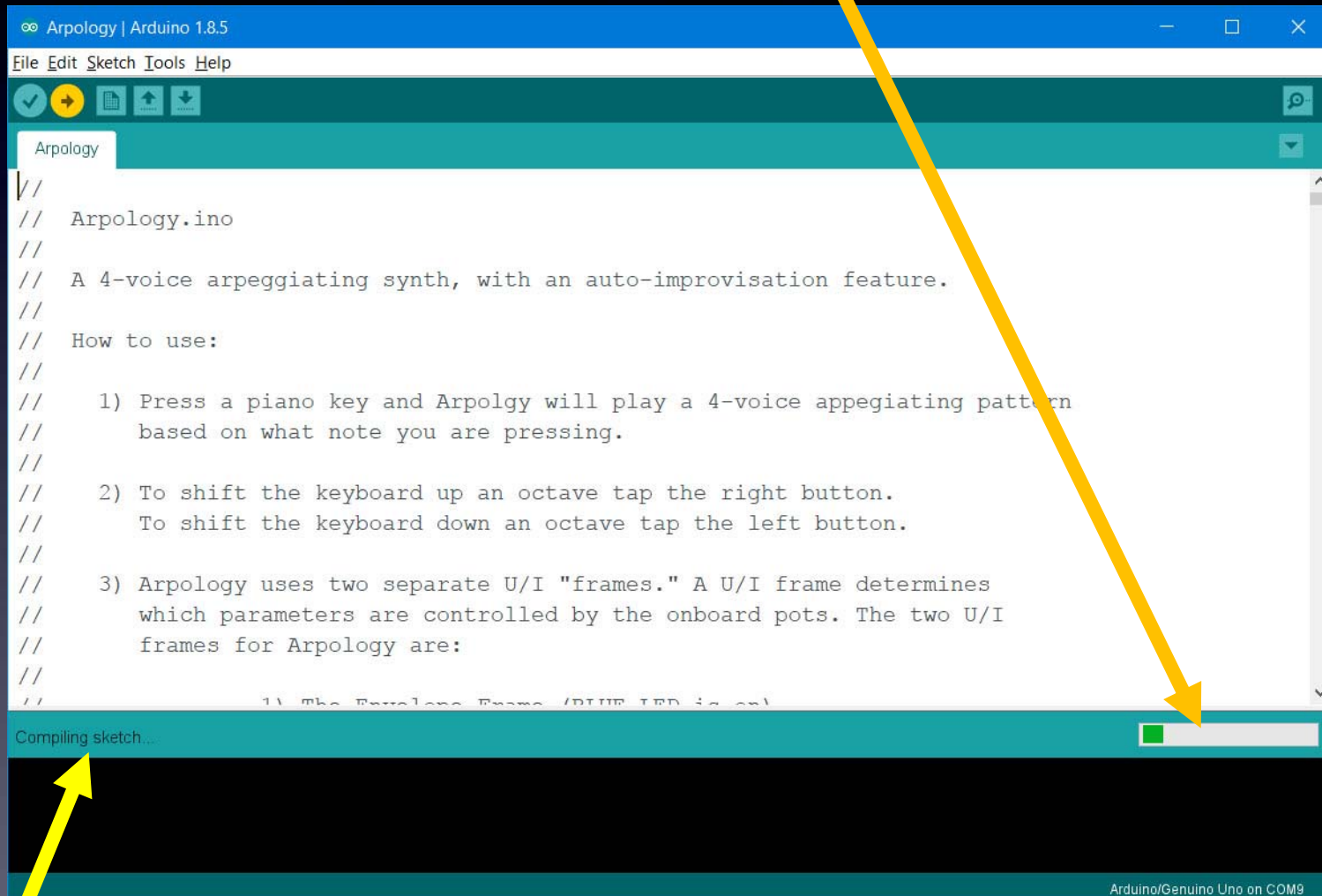
Arduino

With the USB-Serial cable connected to your ArduTouch board press the Upload button



Arduino

While uploading, you will see a progress bar...



...and when it's completed successfully, it says: "Upload done"

ArduTouch

**Disconnect your ArduTouch board
from the USB-Serial cable,**

turn on your battery pack,

And...

Let's make new noise!

