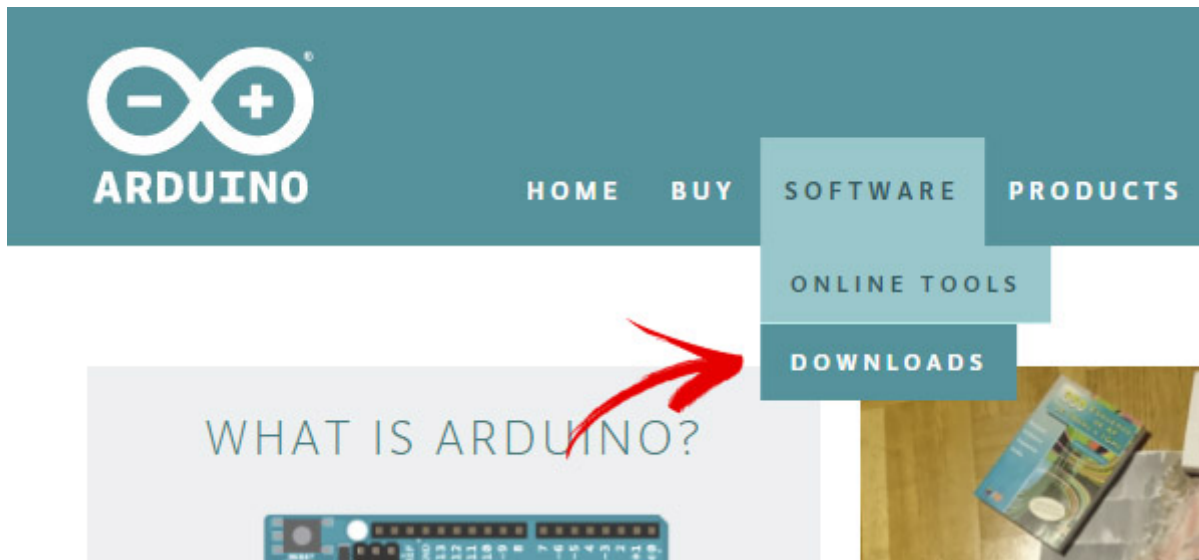


This is a short and easy manual on how to update your MK4 Control Panel firmware.

## STEP 1

Follow this link to <https://www.arduino.cc> and download and install latest Arduino IDE software

First select SOFTWARE and choose DOWNLOADS



Then select Windows installer

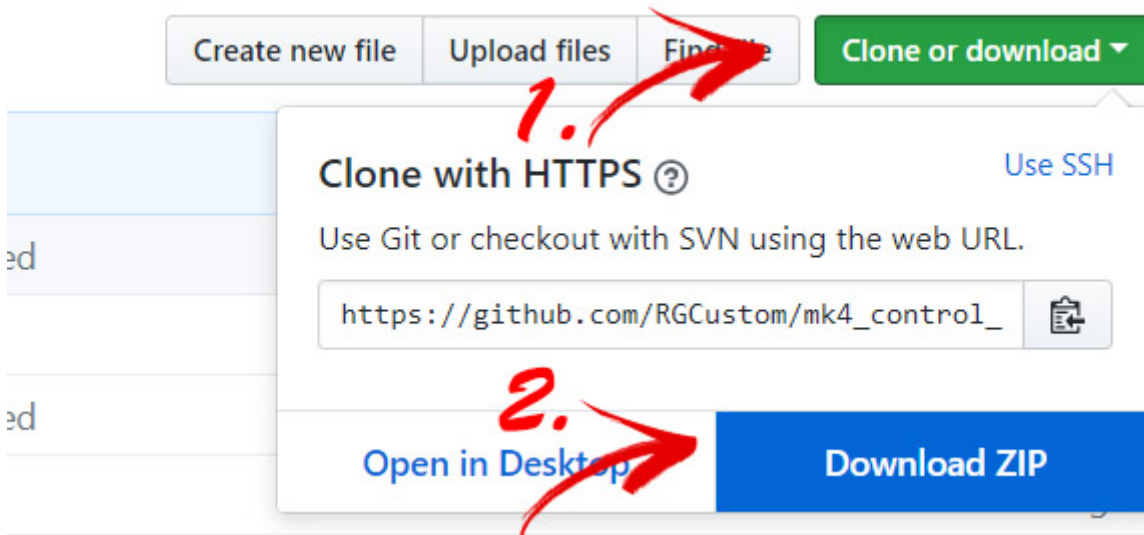


Install Arduino IDE, following installer instructions.

## STEP 2

Go to MK4 Control Panel main GitHub directory [https://github.com/RGCustom/mk4\\_control\\_panel](https://github.com/RGCustom/mk4_control_panel) and download firmware sketches

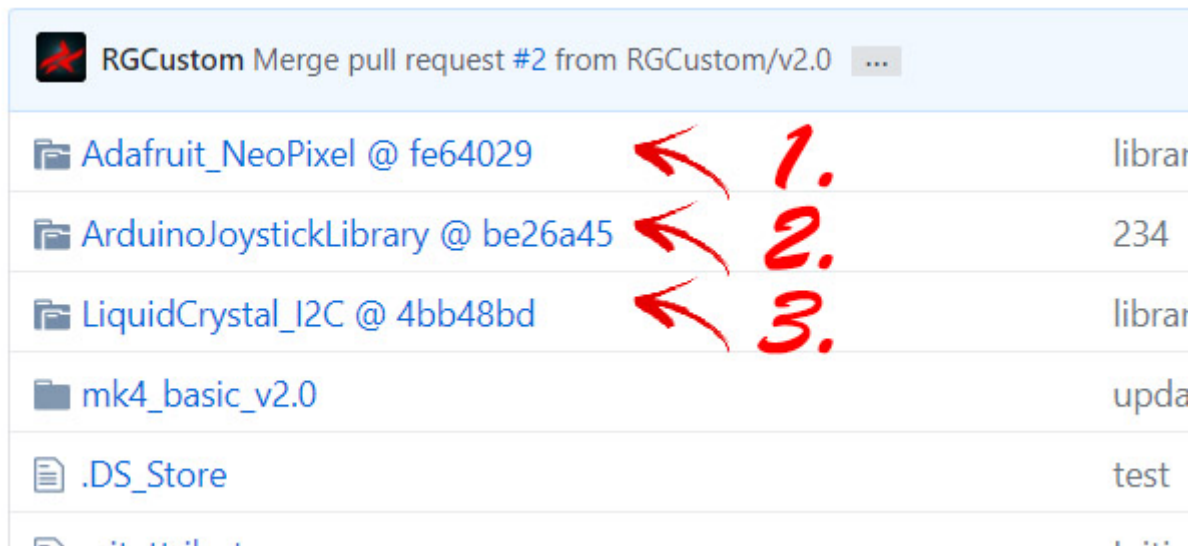
- First click on Clone or Download green buttons and select Download .ZIP



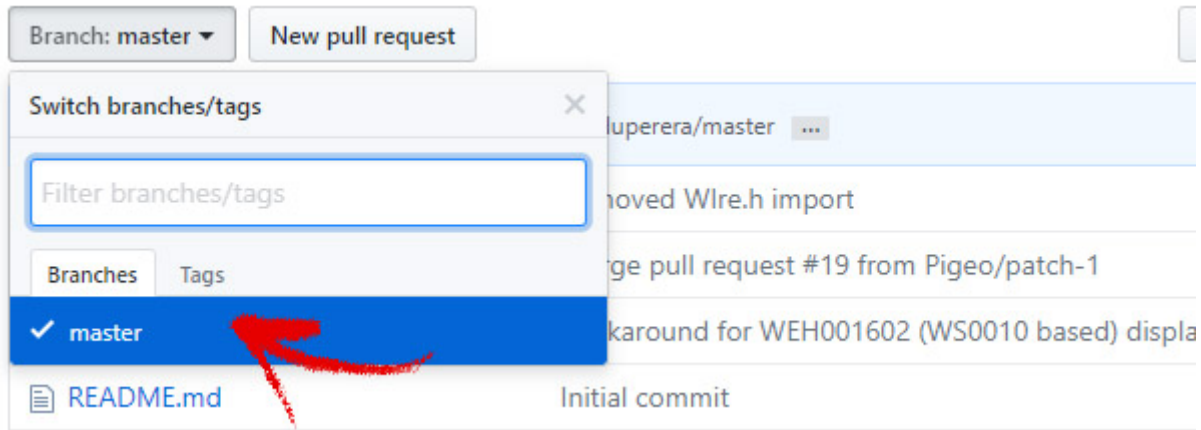
## STEP 3

Now download and install needed libraries (for MK4 basic only ArduinoJoystickLibrary needed)

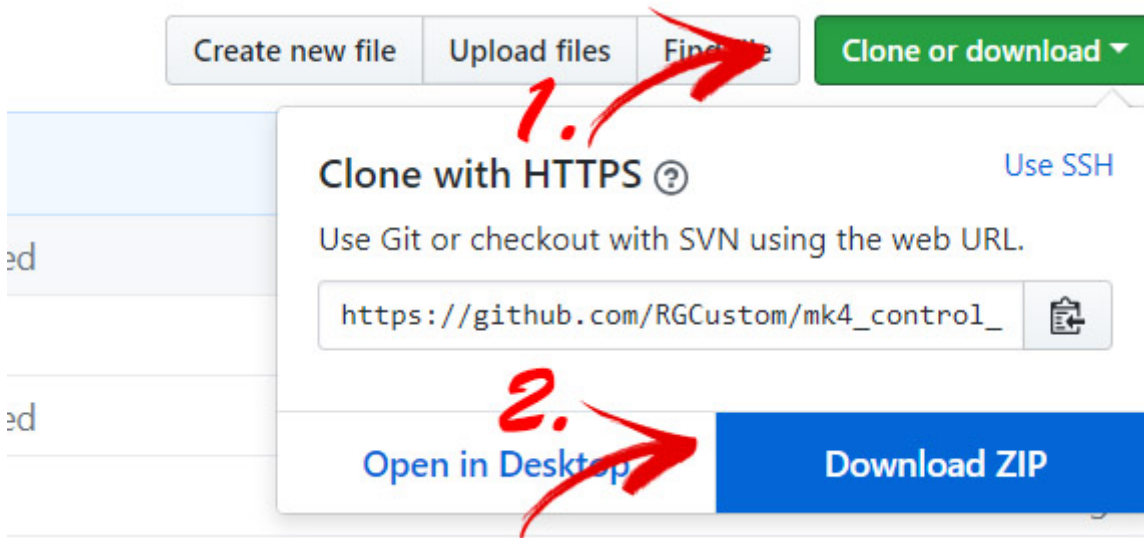
- Libraries, included as submodules wont download on previous step, so they must be downloaded separately.
- Clicking on library will lead you to its location.



- Click Branch button and select master to get the latest library.



↳ Download library same as you downloaded main sketch.



↳ Install libraries in your arduino libraries folder.

Arduino manual on installing libraries <https://www.arduino.cc/en/Guide/Libraries#toc2>

↳ ArduinoJoystick library has a default installation bat file.

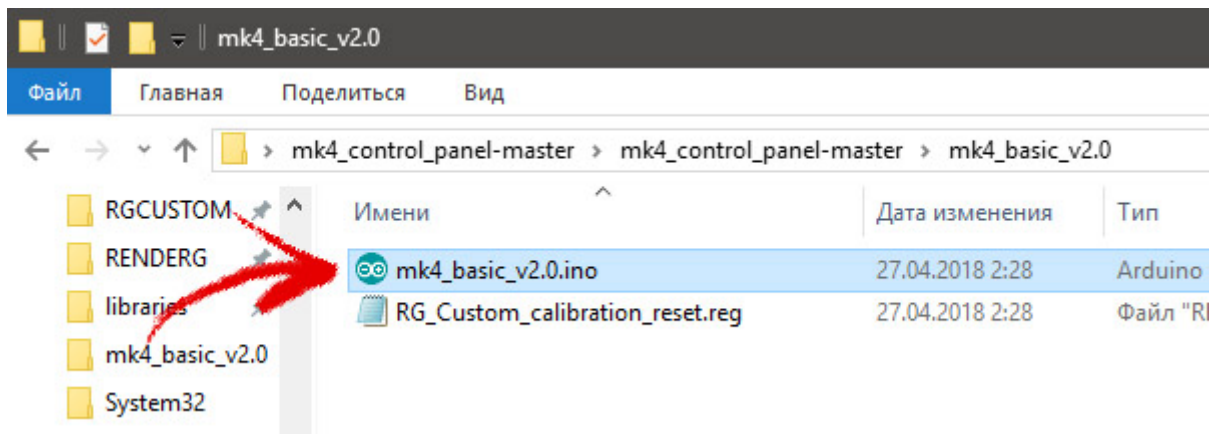
Default libraries location (you can just unzip them there) is C:\Users\ your user name \Documents\Arduino\libraries or just go to My Documents > Arduino > libraries

## STEP 4

↳ Unzip main sketch you downloaded in to a folder.

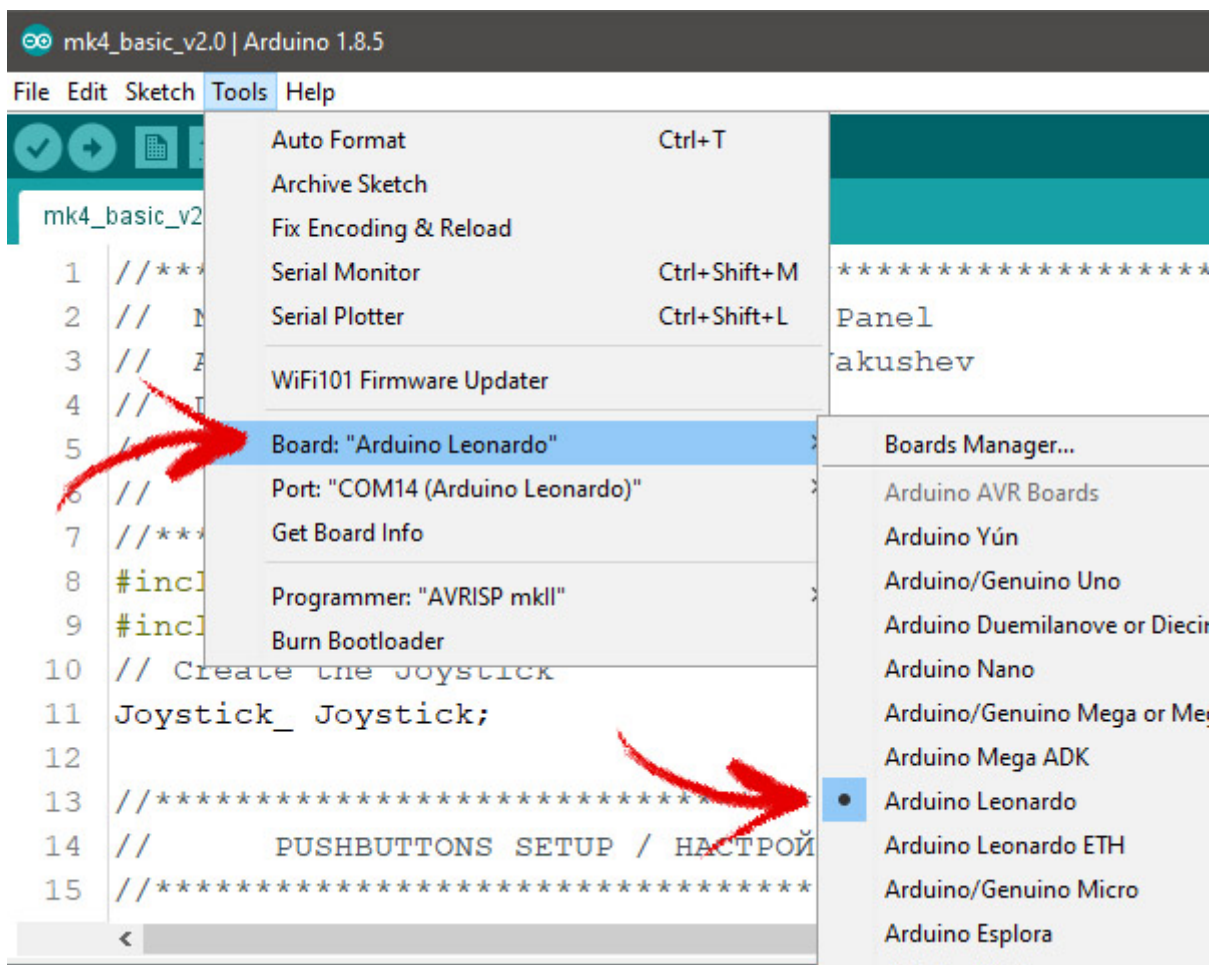
Select folder with a proper firmware sketch (it will start with device model, like mk4\_basic\_v2.0

↳ Open sketch .INO file.



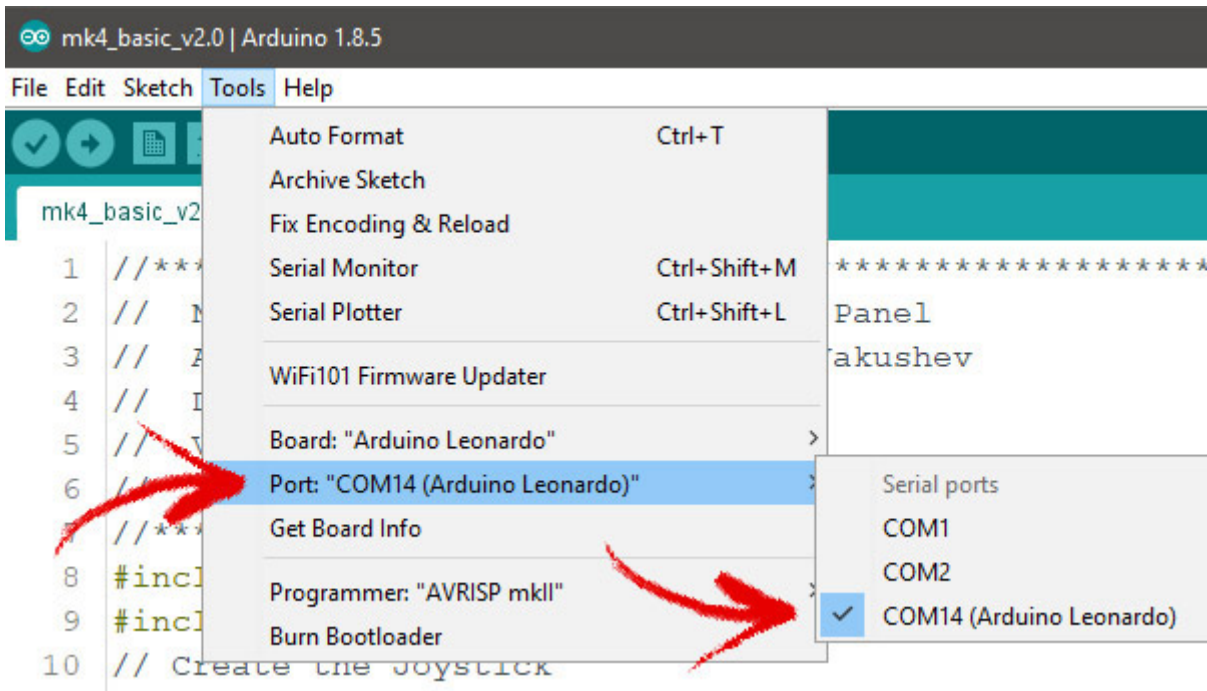
Arduino IDE will open sketch.

## Open Tools menu and select Board -> Arduino Leonardo



## Also select corresponding port number in same menu.

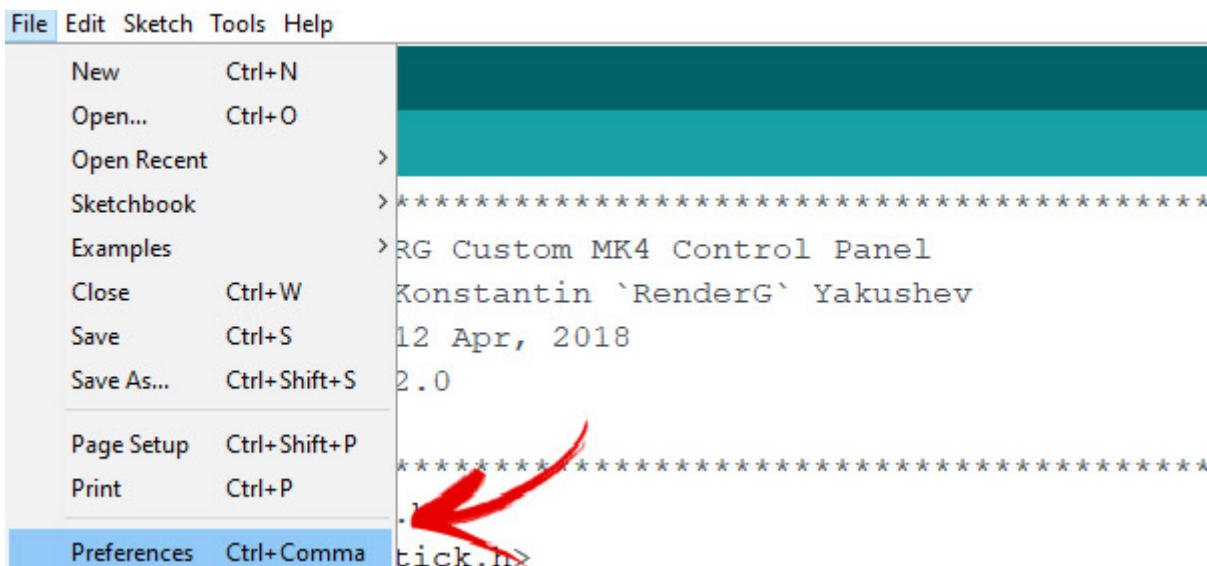




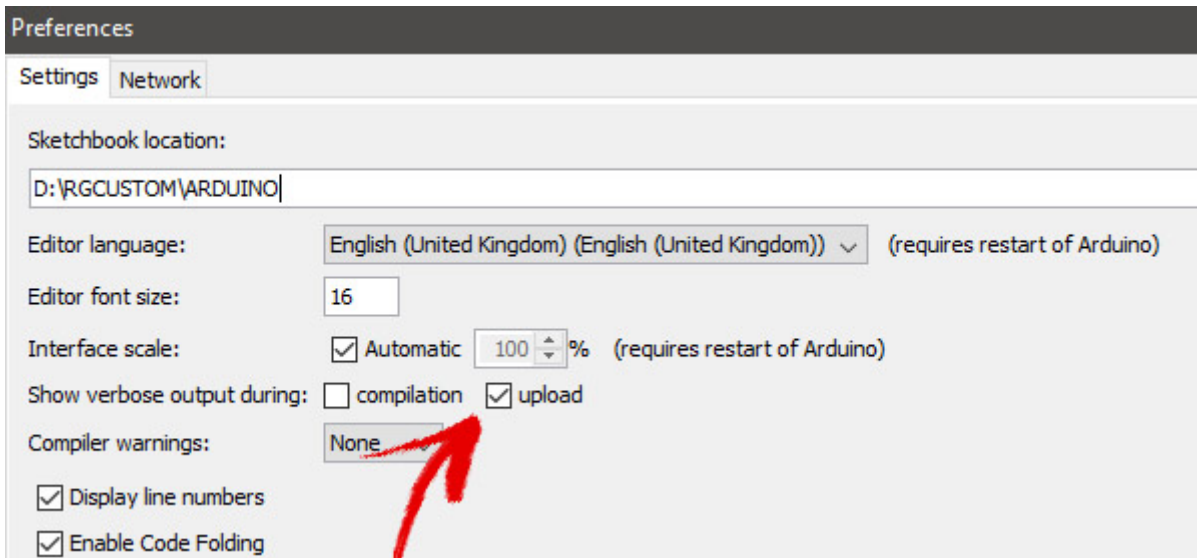
## STEP 5

Prepare Arduino IDE to upload firmware.

### Select Preferences from File menu

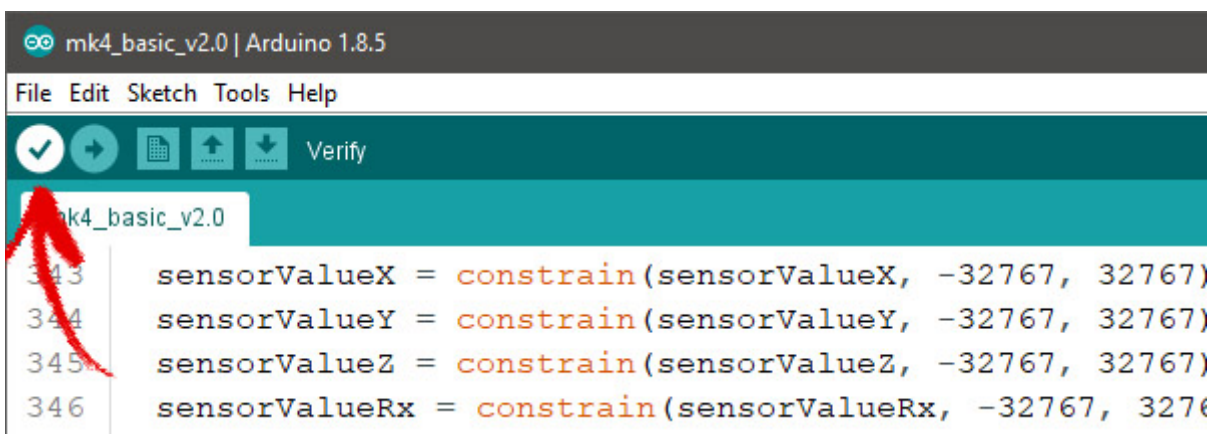


### And in Preferences window mark "Show verbose output during: upload" checkbox

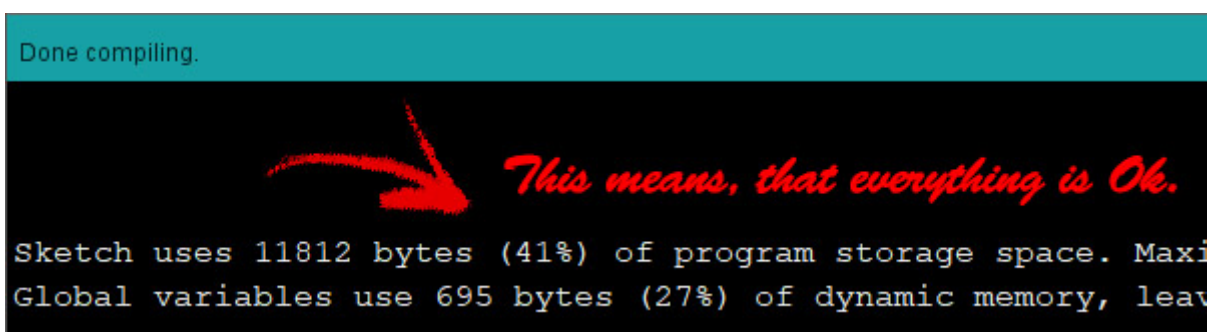


## STEP 6

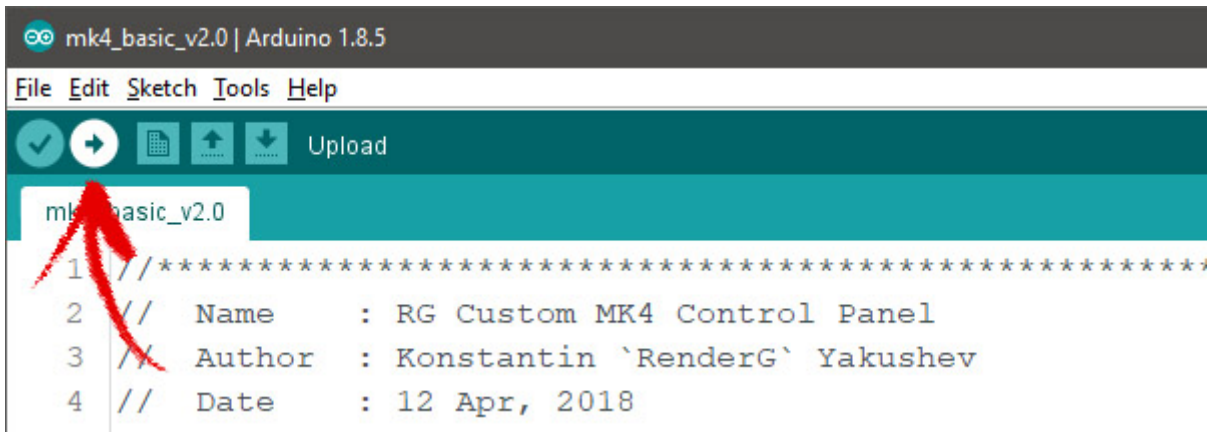
Verify sketch by pressing VERIFY button



If everything is Ok, you will see smth like this



After that hit upload button

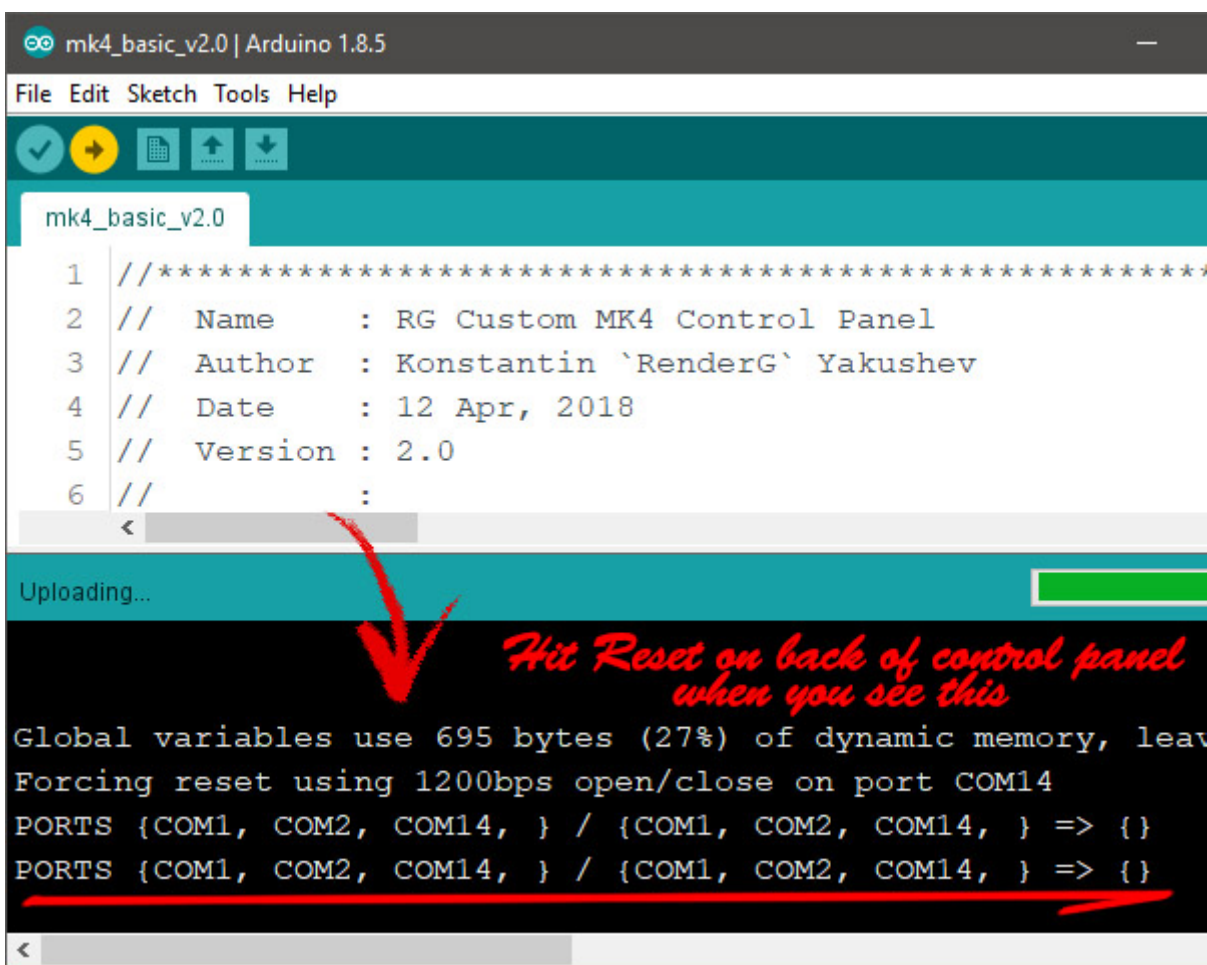


▸ After firmware will compile, Arduino IDE will start looking for controller in bootloader state

▸ And will start scanning ports for arduino, showing smth like

```
PORTS {COM1, COM2, COM14, } / {COM1, COM2, COM14, } => {} PORTS {COM1, COM2, COM14, } /
{COM1, COM2, COM14, } => {}
```

▸ This is when you have to push RESET button on the back of your device.



▸ After upload will be finished, your device will reboot and will be updated.

```
avrdude: verifying ...  
avrdude: 11812 bytes of flash verified
```

```
avrdude done. Thank you.
```



*Your Control panel is updated!*

&lt;