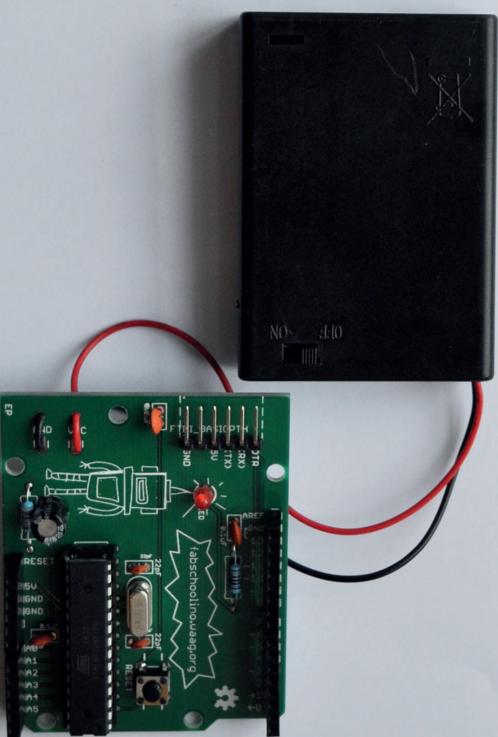


Benodigdheden

Programmeer kabel



Fabschoolino



USB connector



Dit is een overzicht van alle componenten uit zakje 2 plus de Fabschoolino uit de Fabschoolino basiskit van Waag Society. Begin je net aan de Instructable? Check dan voor alle zekerheid of je alle bovenstaande benodigde materialen hebt.

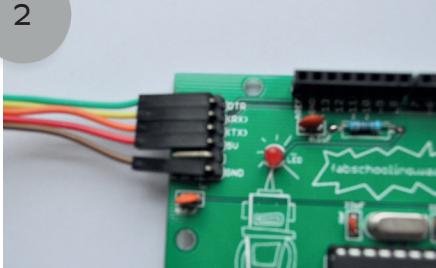
Programming your Fabschoolino

1



Attach the programming cable to the USB connector. Place the colours as pictured above. Brown / gnd, no cable in the CTS, red / 5v, orange / TXD, yellow / RXD, and green / DTR

2



Attach the other end of the programming cable to the Fabschoolino FTDI as pictured above. Brown / gnd, skip over a pin, red / 5v, orange / TX, yellow / RX, and green / DTR

3



Make sure you take the battery out of your Fabschoolino. Then insert the USB into computer where you'll be programming. The indicator of the USB connector should light up.

4

A screenshot of the Arduino website at https://www.arduino.cc/en/Main/Software. The page features the Arduino logo and navigation links for Home, Buy, Download, Products, Learning, Forum, Support, and Blog. A red arrow points to the 'Download' link in the navigation bar. The main content area shows the Arduino IDE version 1.6.12 and download links for Windows (Installer and ZIP), Mac OS X (10.7 Lion or newer), Linux (32-bit and 64-bit), and Linux ARM (experimental). There are also links for Release Notes, Source Code, and Checksums.

Download the Arduino Software

A screenshot of the Arduino download page focusing on the Windows download options. It shows the Windows Installer and ZIP file links. Below these are links for Mac OS X, Linux (32-bit and 64-bit), and Linux ARM (experimental). At the bottom of the section are links for Release Notes, Source Code, and Checksums.

In order to program, you'll need something called a "compiler". You can download the compiler at <https://www.arduino.cc/en/Main/Software>. To download the Windows version, click the link shown above in the picture with a red arrow.

Programming your Fabschoolino

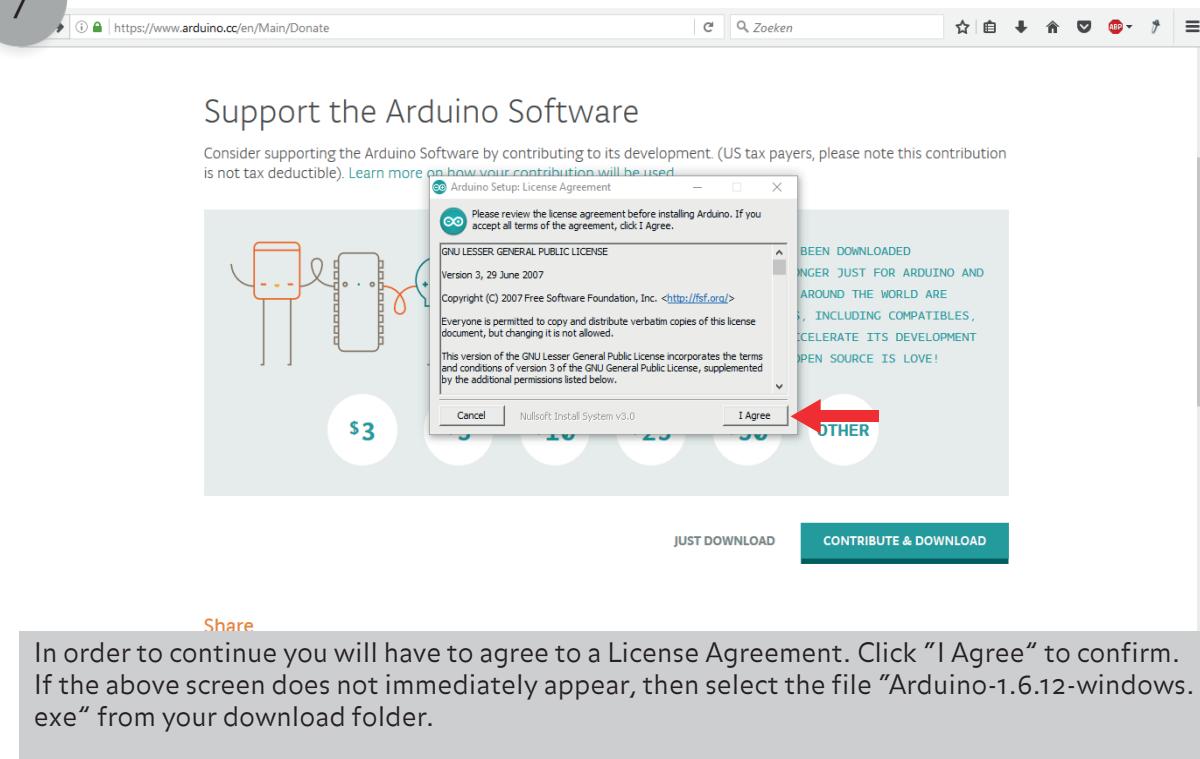
5

The screenshot shows the Arduino Software donation page. At the top, there's a navigation bar with links for Buy, Download, Products, Learning, Forum, Support, and Blog. Below the navigation bar, a heading says "Support the Arduino Software". A sub-headline encourages users to contribute to the development of the Arduino IDE, noting it has been downloaded 10,612,395 times. There are five circular buttons for contribution amounts: \$3, \$5, \$10, \$25, and \$50. A red arrow points to the "JUST DOWNLOAD" button, which is located next to a "CONTRIBUTE & DOWNLOAD" button. Below the main content, there's a "Share" link and a note about being directed to the page above.

6

The screenshot shows the same donation page as above, but with a download dialog box overlaid. The dialog box is titled "arduino-1.6.12-windows.exe openen" and asks if the user wants to save the file. It shows the file name, size (84.2 MB), and download location (https://downloads.arduino.cc). A red arrow points to the "Bestand opslaan" (Save File) button in the dialog. The "JUST DOWNLOAD" button is visible at the bottom of the page.

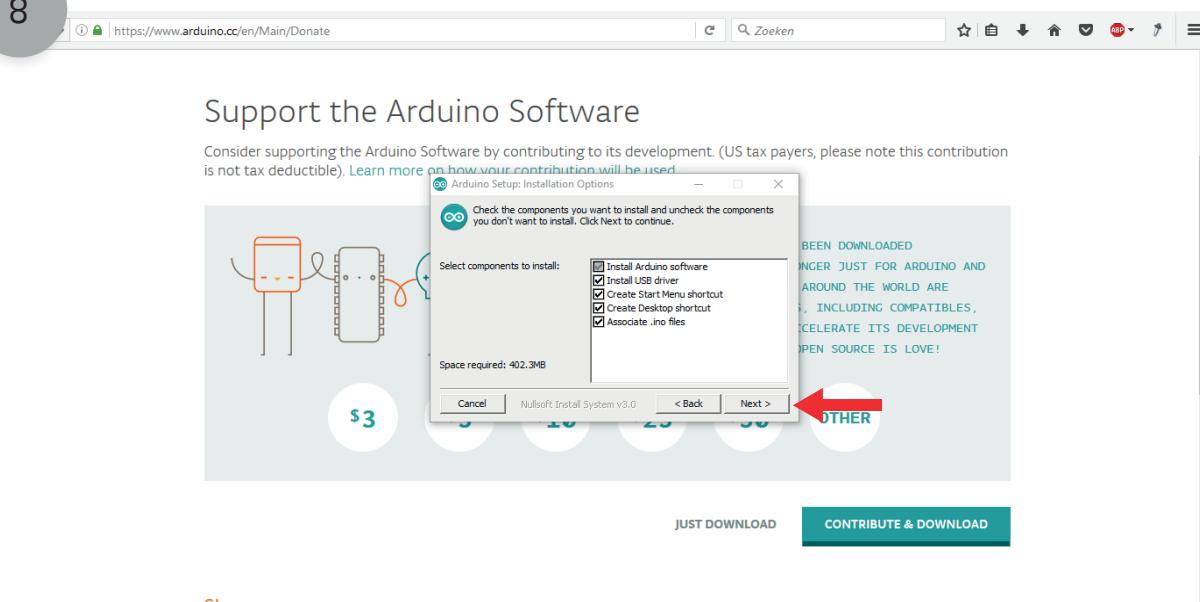
7



Share

In order to continue you will have to agree to a License Agreement. Click "I Agree" to confirm. If the above screen does not immediately appear, then select the file "Arduino-1.6.12-windows.exe" from your download folder.

8

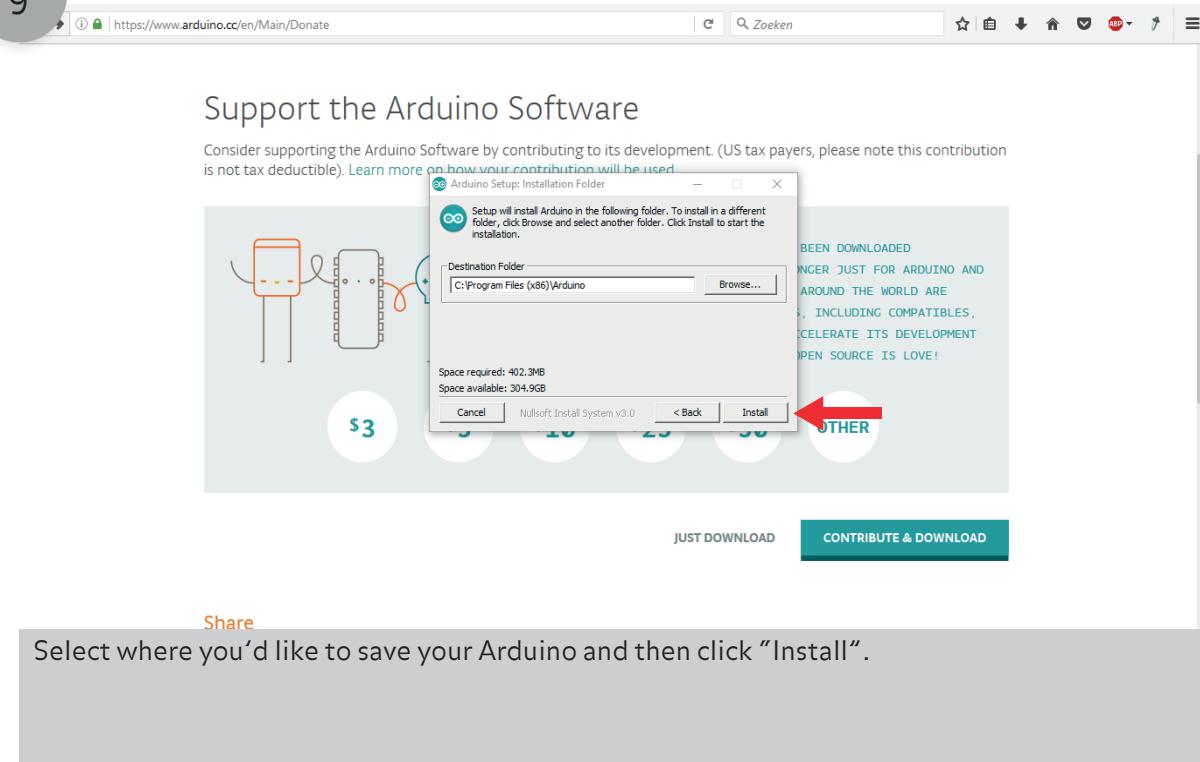


Share

Make sure all boxes have been checked and click "Next".

Programming your Fabschoolino

9



Share

Select where you'd like to save your Arduino and then click "Install".

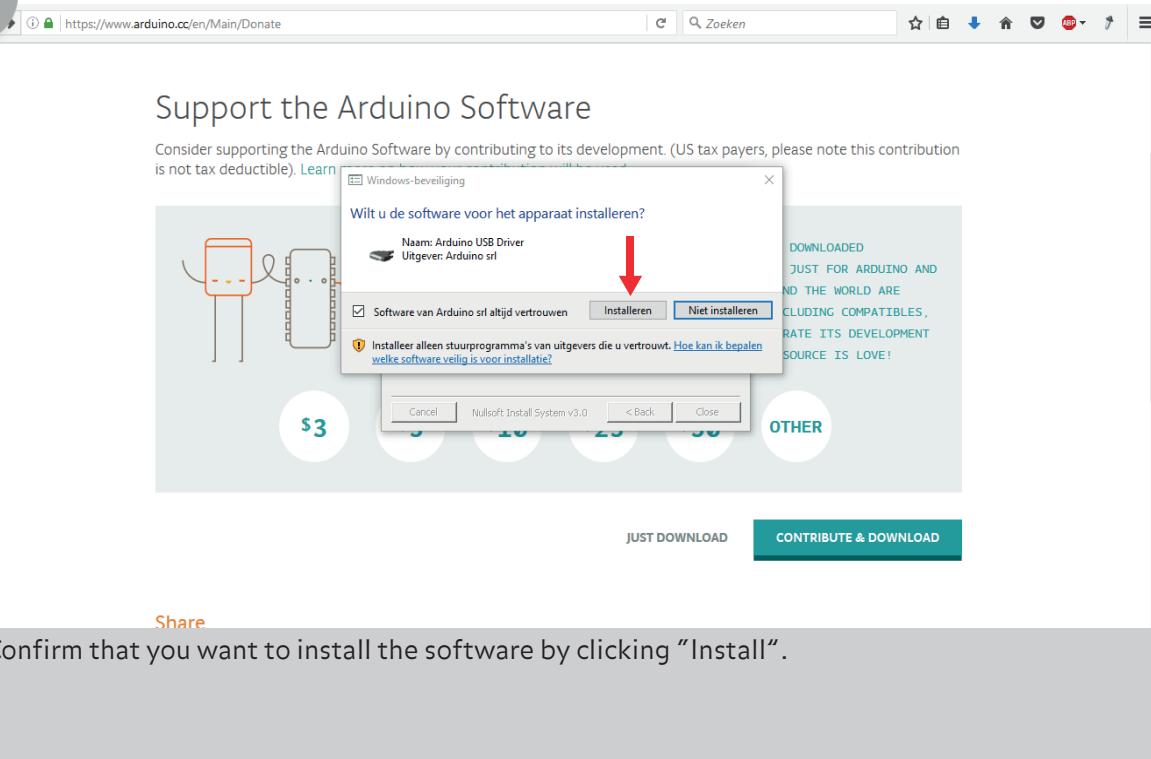
10



Share

Wait until the progress bar is full.

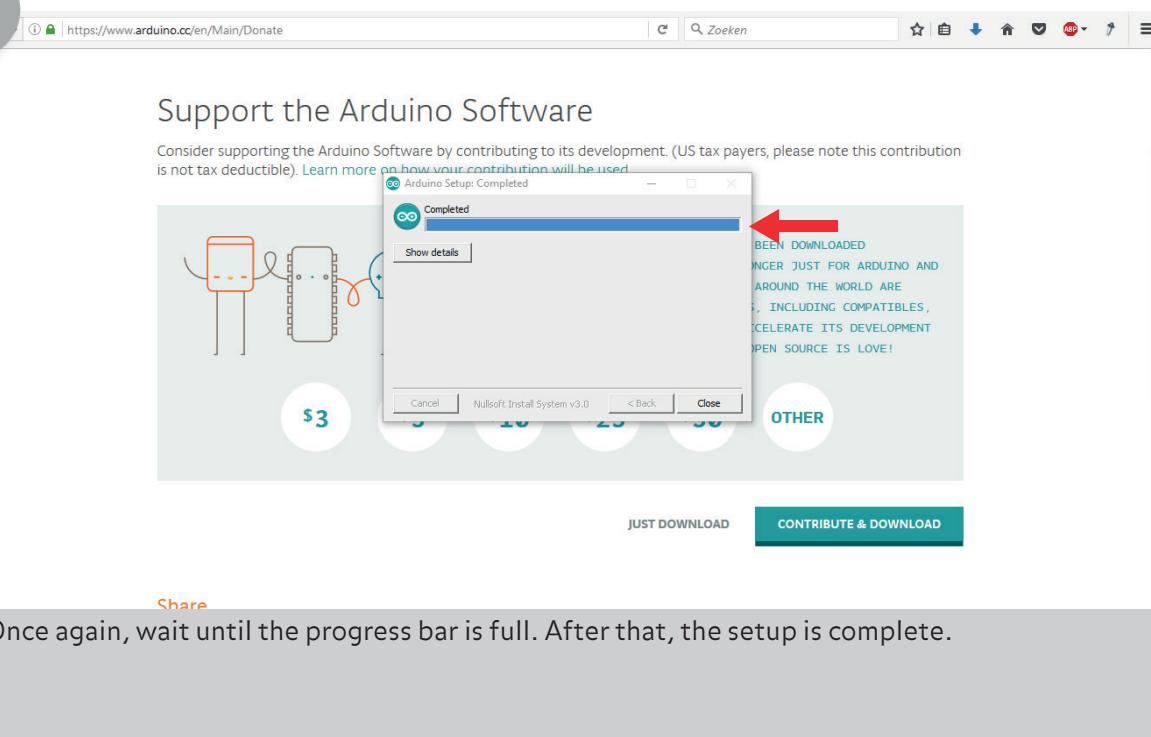
11



Share

Confirm that you want to install the software by clicking "Install".

12

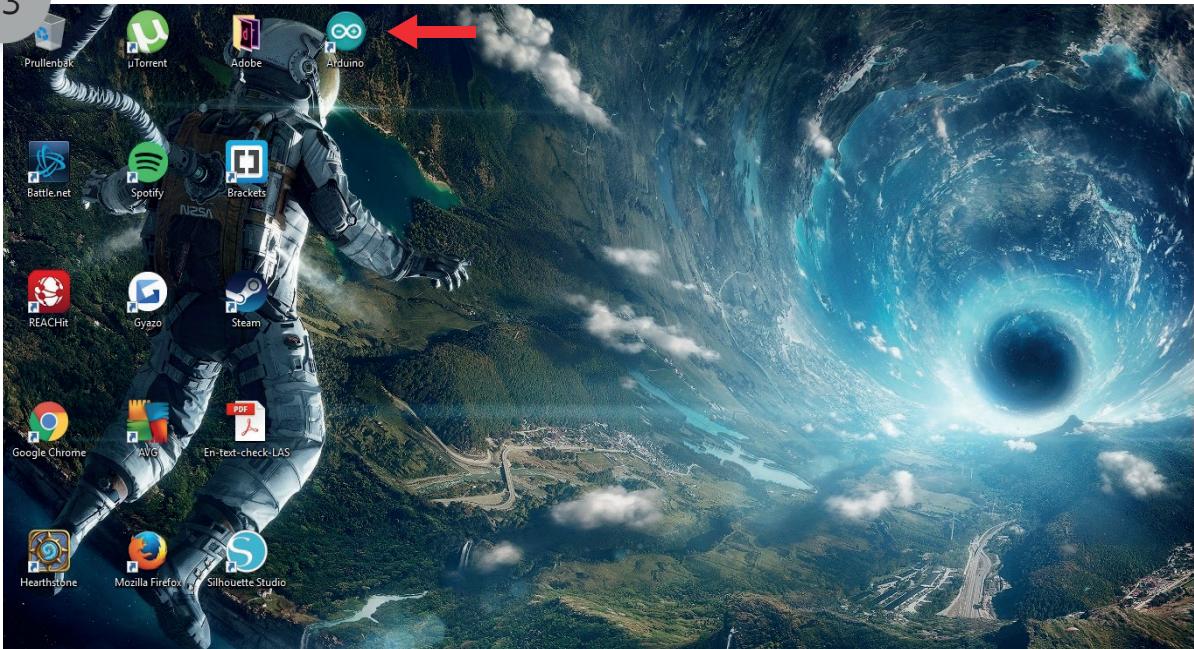


Share

Once again, wait until the progress bar is full. After that, the setup is complete.

Programming your FabSchoolino

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Now you should be able to find the Arduino on your Desktop. Double-click to start.

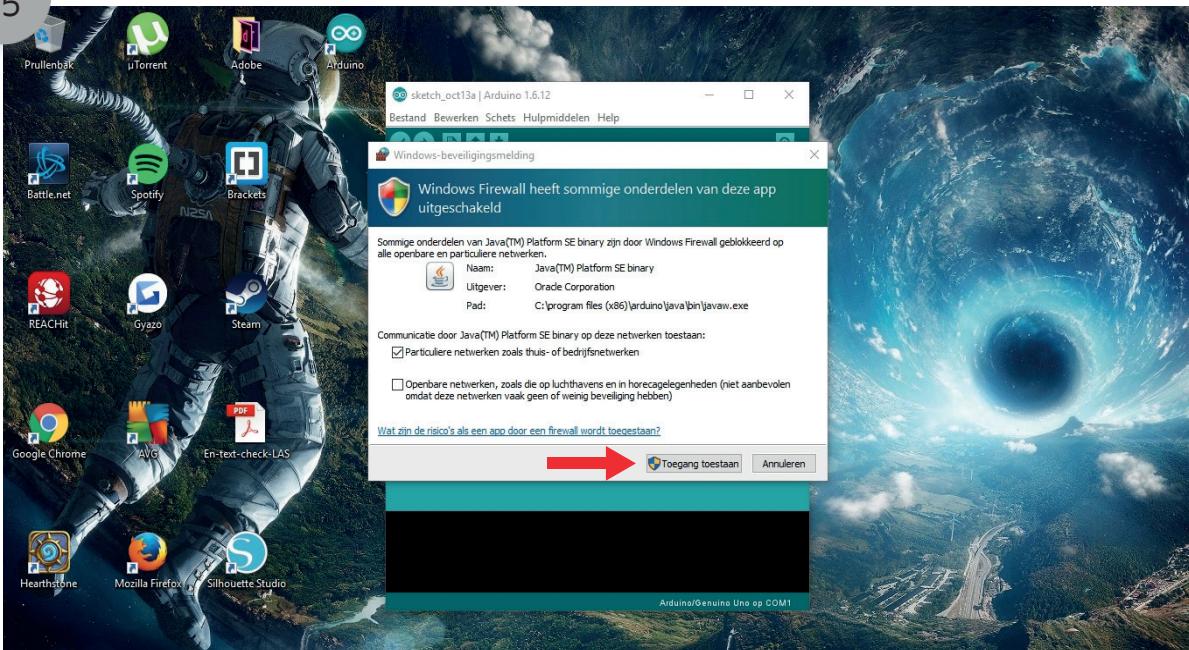
14



Arduino is starting up. Wait a minute.

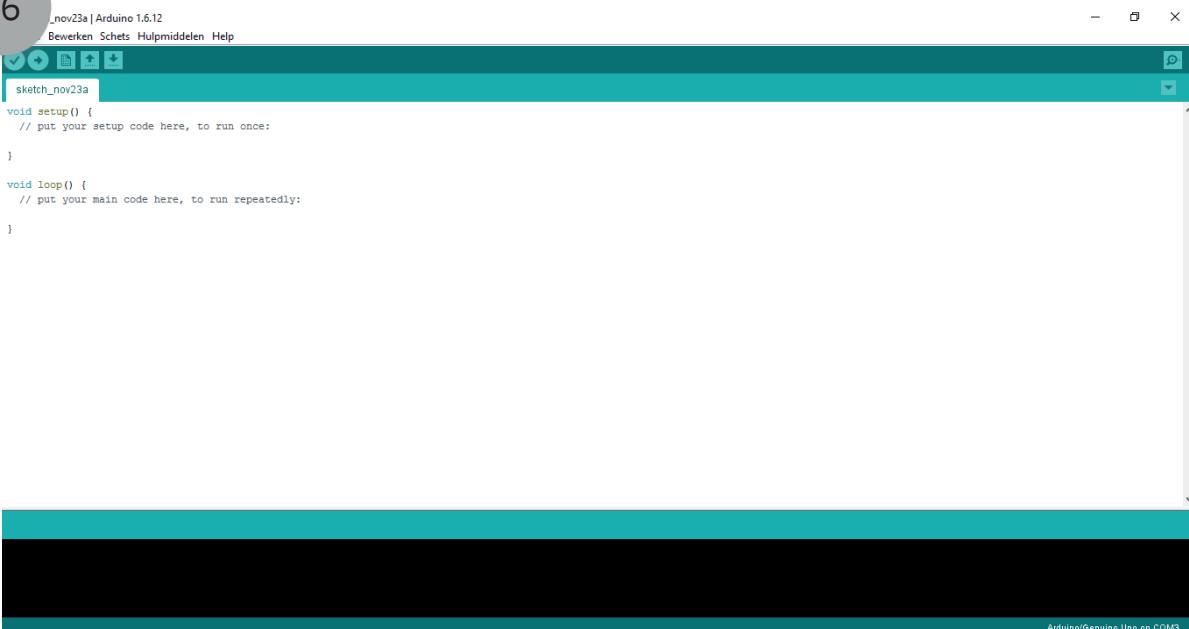
Programming your Fabschoolino

15



It's possible that your firewall may have blocked some things. Click "Allow Access" to continue.

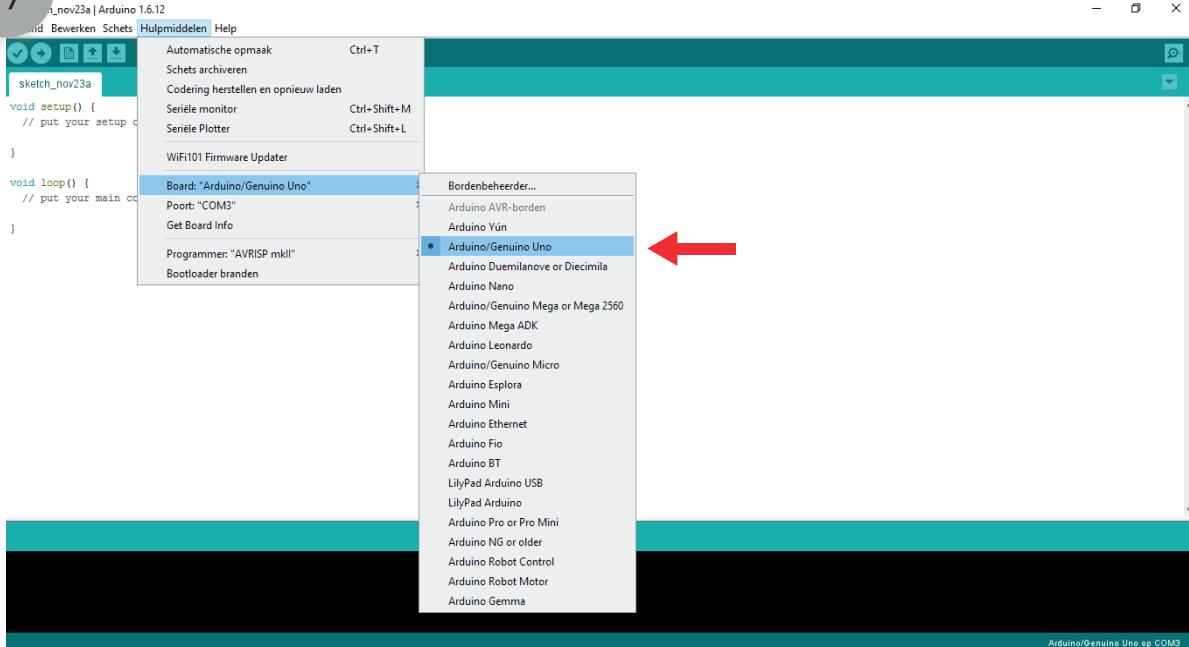
16



This is the first screen you'll see when Arduino is launched. The white section is where you'll soon place the code that you'll upload onto your Fabschoolino.

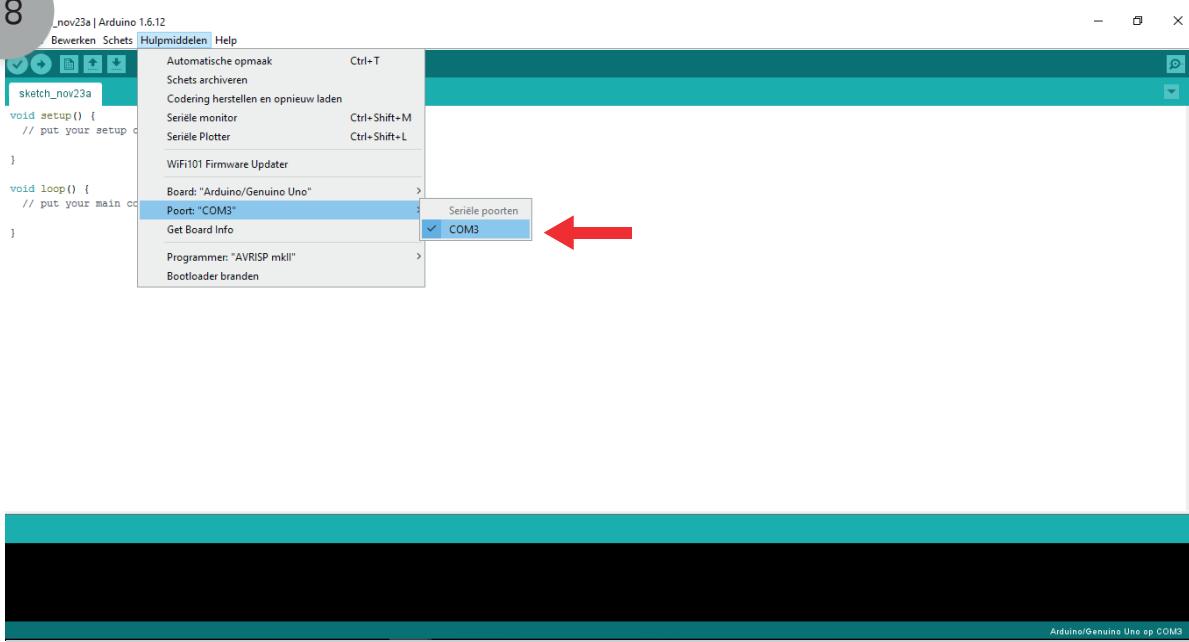
Programming your Fabschoolino

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Now go to the “Tools” menu at the top of your screen. Hold your mouse over “Board: Arduino / Genuino Uno” and select “Arduino / Genuino Uno” from the menu that pops up. This will allow you to connect with your Fabschoolino.

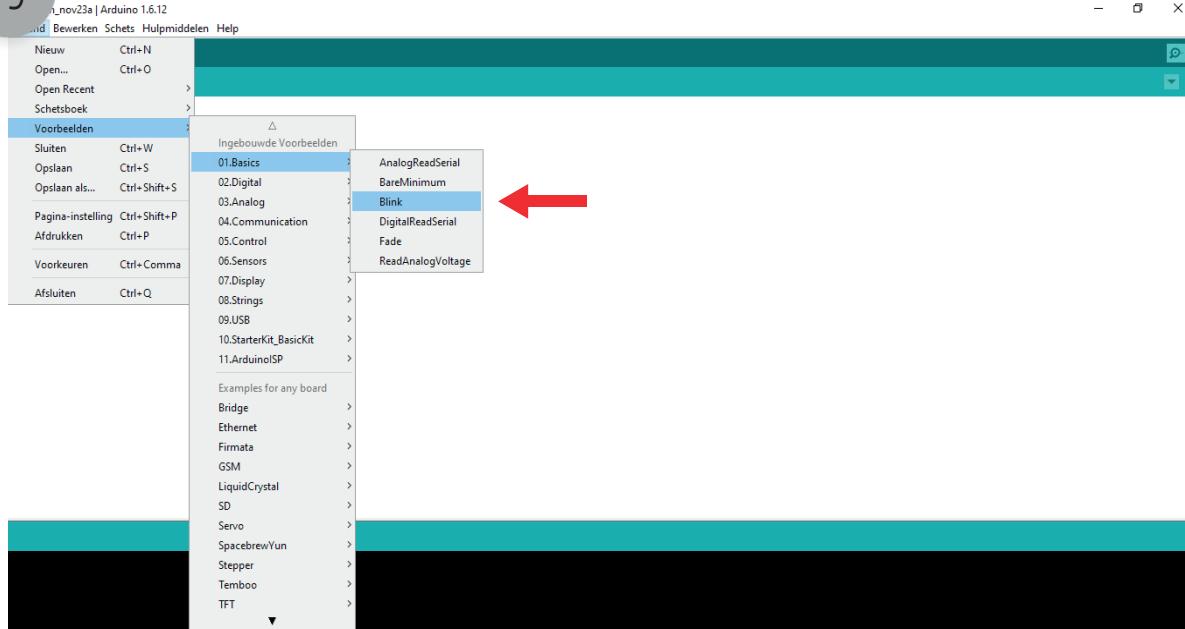
18



Go to the “Tools” menu. Hold your mouse over “Port” and select “COM3”.

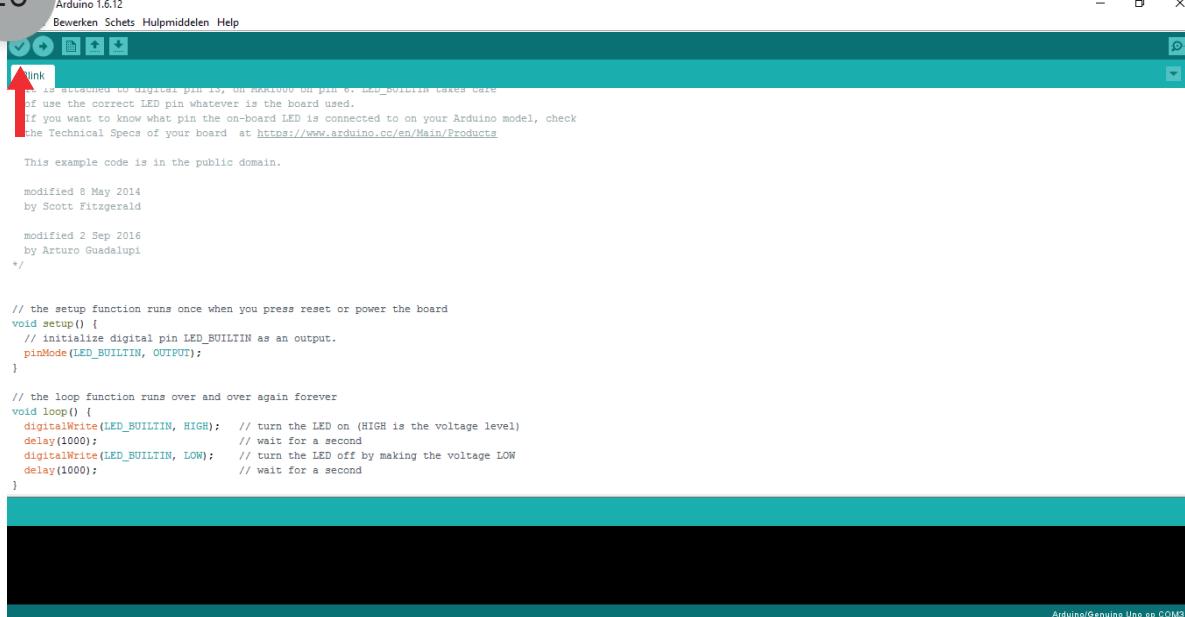
Programming your Fabschoolino

19



It is now time to test whether or not everything is working. Go to File> Examples> 01.basics and click Blink.

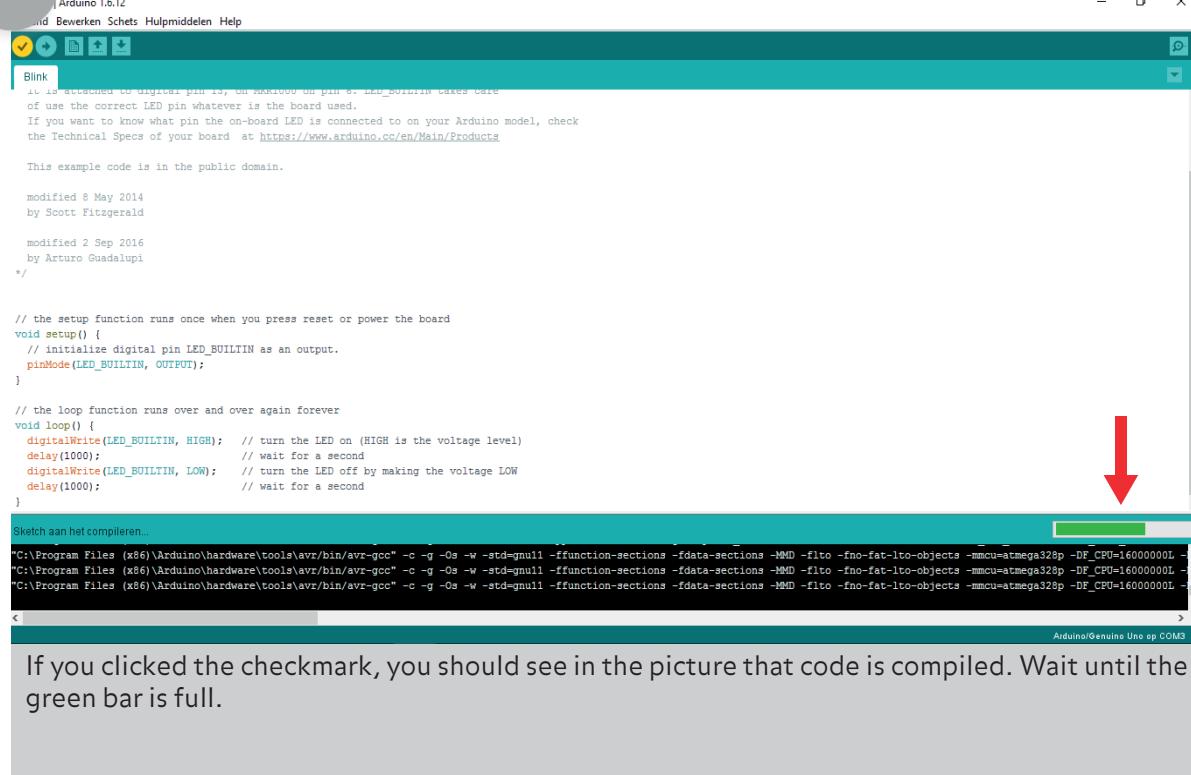
20



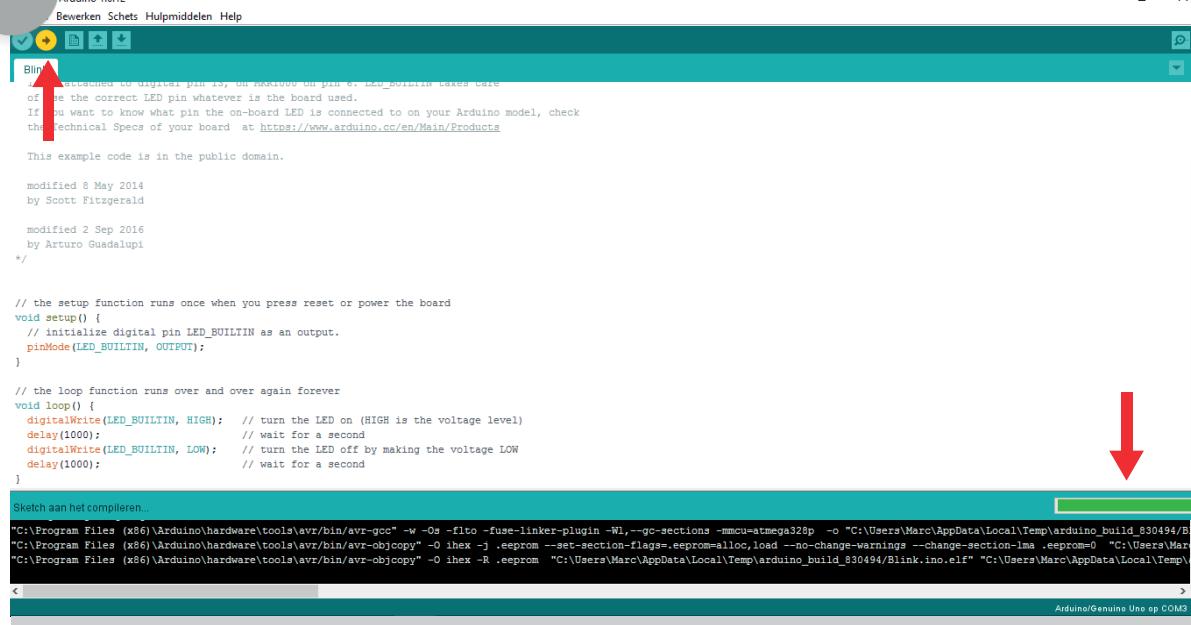
You should now have code in the white section mentioned earlier. This code, once compiled, should cause the LED on your Fabschoolino to flash. But first, we need to compile the code. You do this by clicking the checkmark at the top of the compiler.

Programming your Fabschoolino

21



22



Now that the code is compiled, it's time to upload the code onto the Fabschoolino. Click the button with the arrow in it. This will take some time, so be patient.

Programming your Fabschoolino

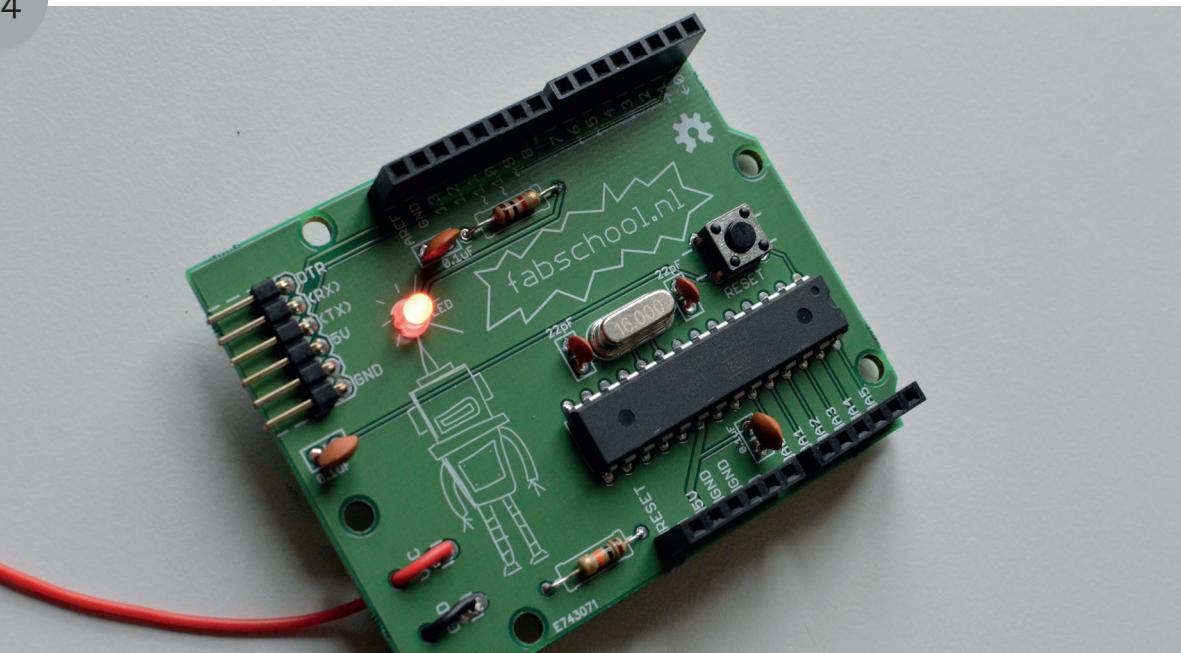
23

The screenshot shows the Arduino IDE interface. The top menu bar includes 'File', 'Edit', 'Tools', 'Sketch', 'Upload', 'Scheets', 'Help', and 'Middelen'. Below the menu is a toolbar with icons for file operations like Open, Save, and Print. A tab labeled 'Blink' is active. The main code editor displays the 'Blink' sketch, which controls an LED on pin 13. The terminal window at the bottom shows the output of the 'avrdude' command, indicating a successful upload. A red arrow points to the 'avrdude done. Thank you.' message.

```
/*  
 * Arduino 1.6.12  
 * Ardunio Sketch Helpmidden Help  
 */  
  
Blink  
Blink  
Turns on an LED on for one second, then off for one second, repeatedly.  
  
Most Arduinos have an on-board LED you can control. On the UNO, MEGA and ZERO it is attached to digital pin 13, on MKR1000 on pin 6. LED_BUILTIN takes care of use the correct LED pin whatever is the board used.  
If you want to know what pin the on-board LED is connected to on your Arduino model, check the Technical Specs of your board at https://www.arduino.cc/en/Main/Products.  
  
This example code is in the public domain.  
  
modified 8 May 2014  
by Scott Fitzgerald  
  
modified 2 Sep 2016  
by Arturo Guadalupi  
*/  
  
// the setup function runs once when you press reset or power the board  
void setup() {  
    // initialize digital pin LED_BUILTIN as an output.  
}  
  
Uploaden void void  
  
Reading | #####| 100% 0.11s  
  
avrduude: verifying ...  
avrduude: 928 bytes of flash verified  
  
avrduude done. Thank you.  
  
Arduino/Genuine Uno op COM3
```

If you see the following screen, then your upload is successful.

24



Congratulations! You've programmed your Fabschoolino for the first time!