Balancing Robots
guide for the hands-on experiences

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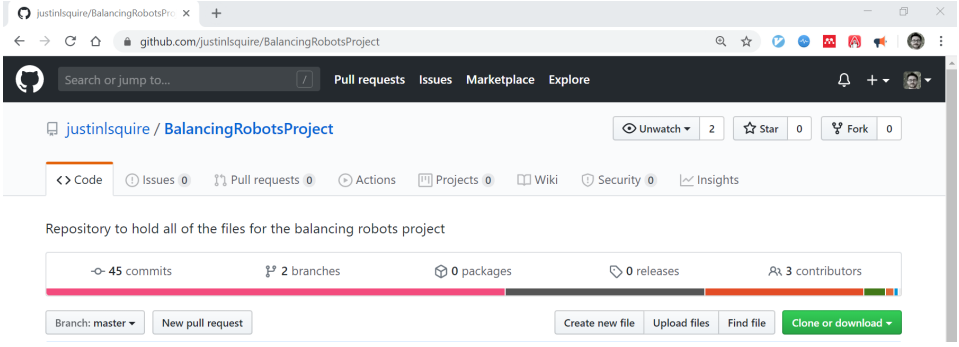
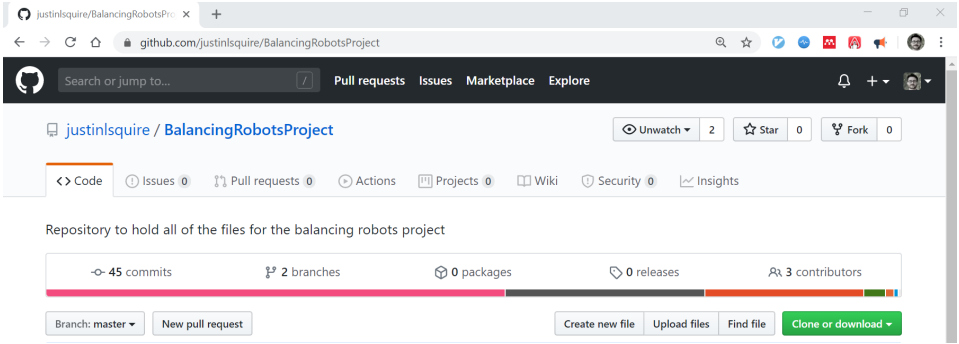
Instructions for installing the software

go to `https://github.com/justinlsquire/BalancingRobotsProject`,
it should look like this:



Instructions for installing the software

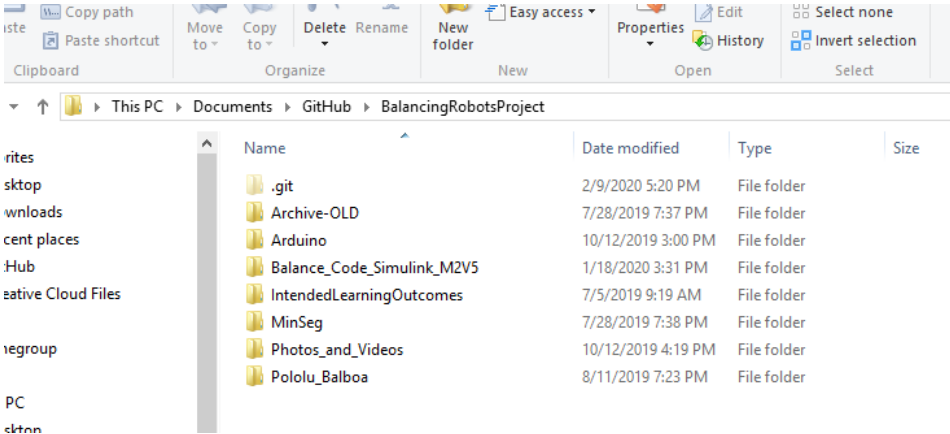
download the software by clicking the “clone or download” button:



in any folder you prefer, then unzip the downloaded file

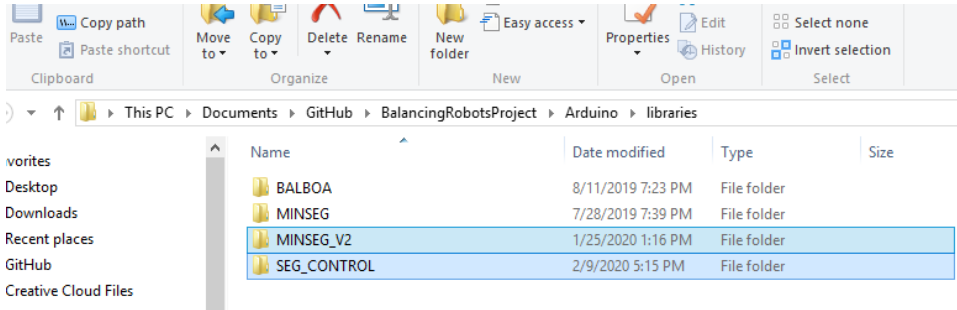
Instructions for installing the software

open the unzipped file (sometimes called also “repository”) in your file explorer:



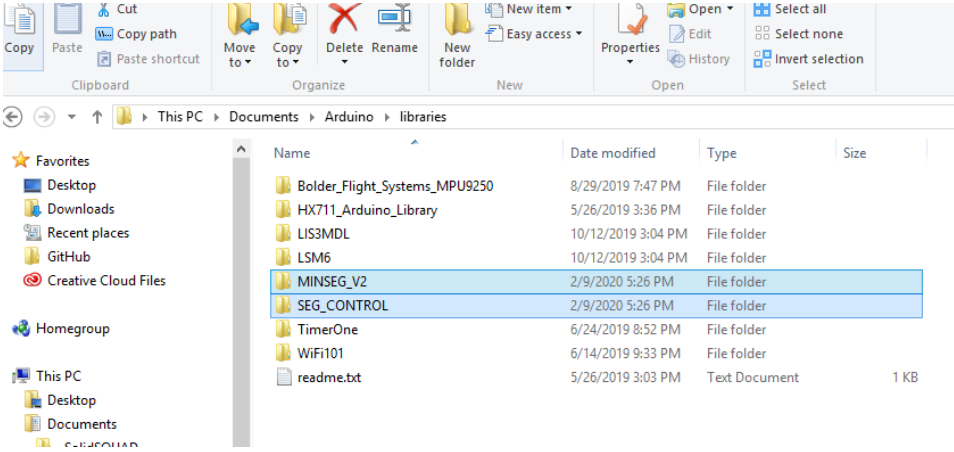
Instructions for installing the software

go to the “Arduino” folder, then the “libraries” folder, then highlight and ***copy*** the two folders called “MINSEG_V2” and “SEG_CONTROL”:



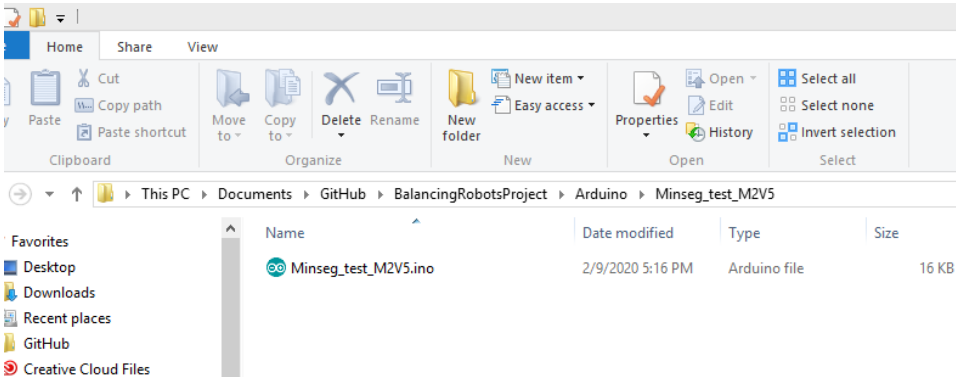
Instructions for installing the software

go to your Arduino Libraries folder (note that the default location for Windows is `Documents` ↦ `Arduino` ↦ `Libraries`) and paste the two folders there



Instructions for installing the software

go back to the GitHub repository folder `BalancingRobotsProject` ↦ `Arduino` ↦ `Minseg_test_M2V5`, and then open the "Minseg_test_M2V5.ino" file in Arduino



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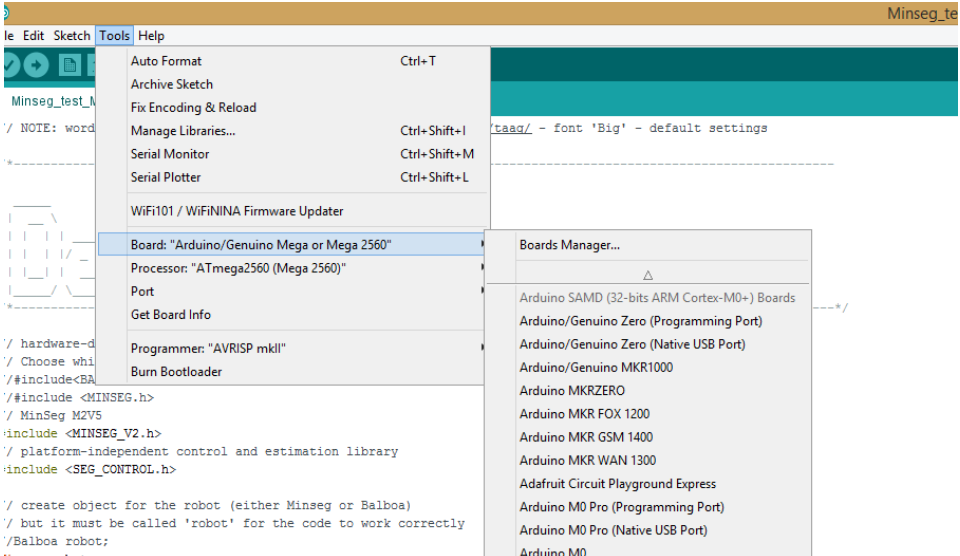
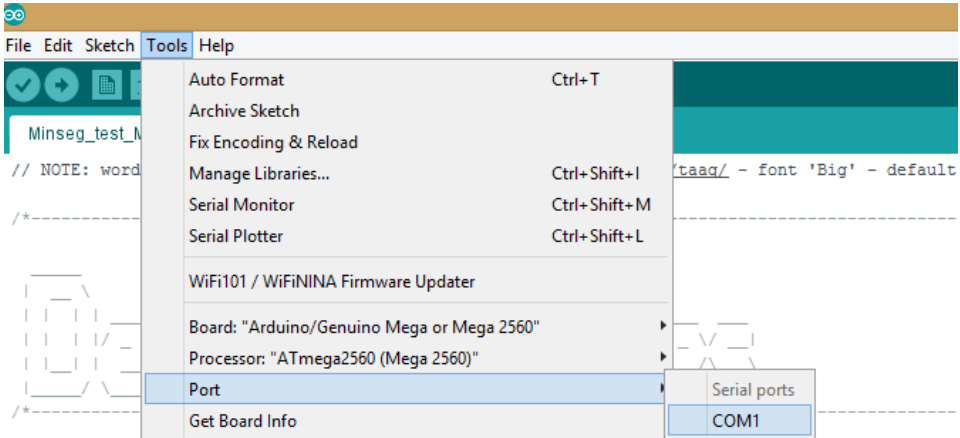
go to `Tools` ↦ `Board` and select “Arduino/Genuino Mega or Mega 2560”



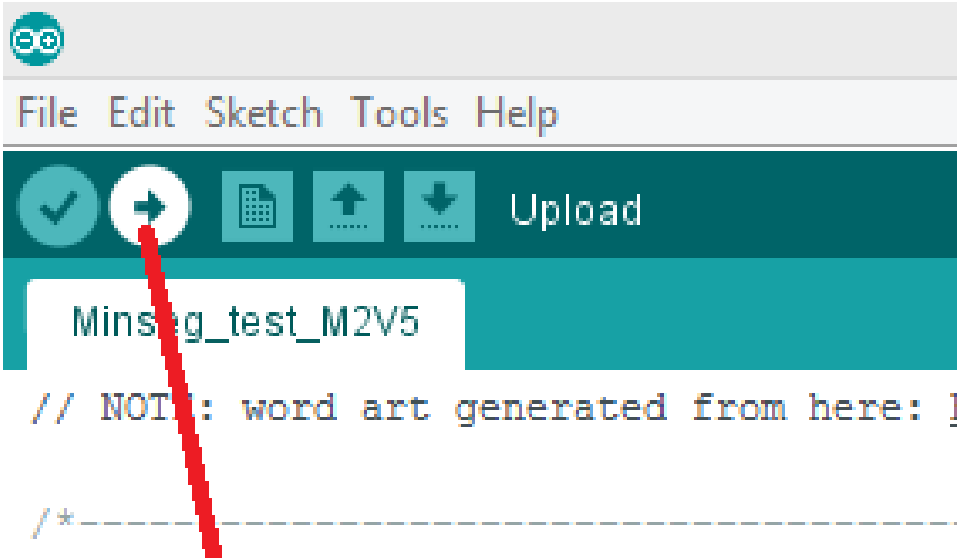
Instructions for installing the software

go to `Tools` ↦ `Port` and select the COM port associated with the MinSeg you plugged in via the USB port (If you unplug the MinSeg and check this Port field again, you should see one missing... This is the port that you should select when you plug back in the MinSeg)



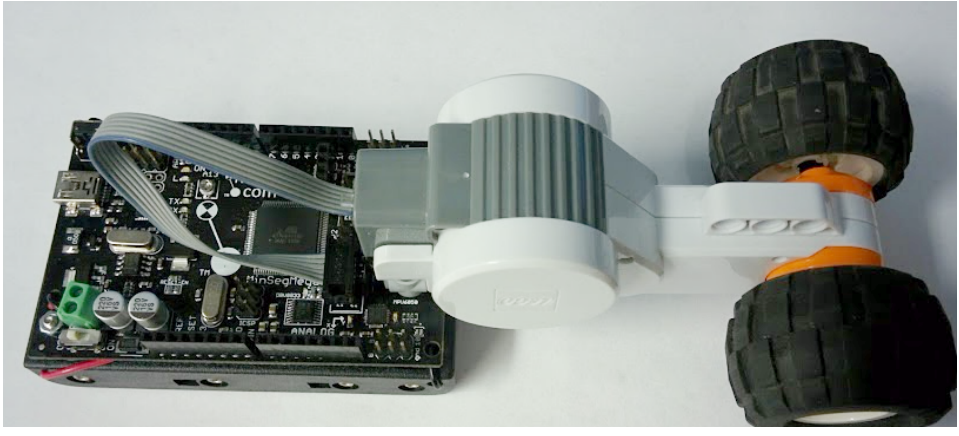
Instructions for installing the software

Click the “Upload” button to load the code to the MinSeg



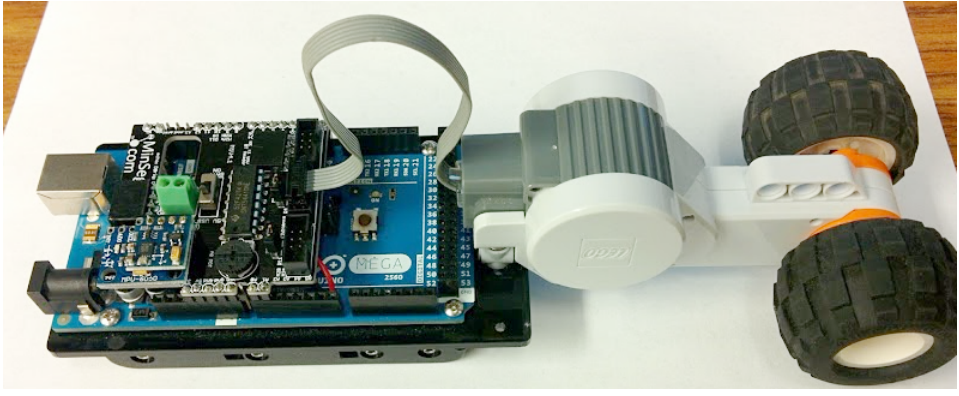
Instructions for installing the software

Check that, depending on your hardware, the connections with the motor are as in figure (1/2):



Instructions for installing the software

Check that, depending on your hardware, the connections with the motor are as in figure (2/2):



Instructions for installing the software

Hold the Robot upright and make sure the switches are set to “ON”, “BATT”, and “ON” from the top down - the robot should start balancing if everything went well!