

SeeMeCNC Guides

DUET Firmware Update

Update your SeeMeCNC 3D printer Duet firmware. We prefer you follow this guide when instructed by a SeeMeCNC support person or a post on our facebook page.

Written By: SeeMeCNC



TOOLS:

- [Micro SD Card Reader](#) (1)
-

Step 1 — STOP ! READ THIS STEP



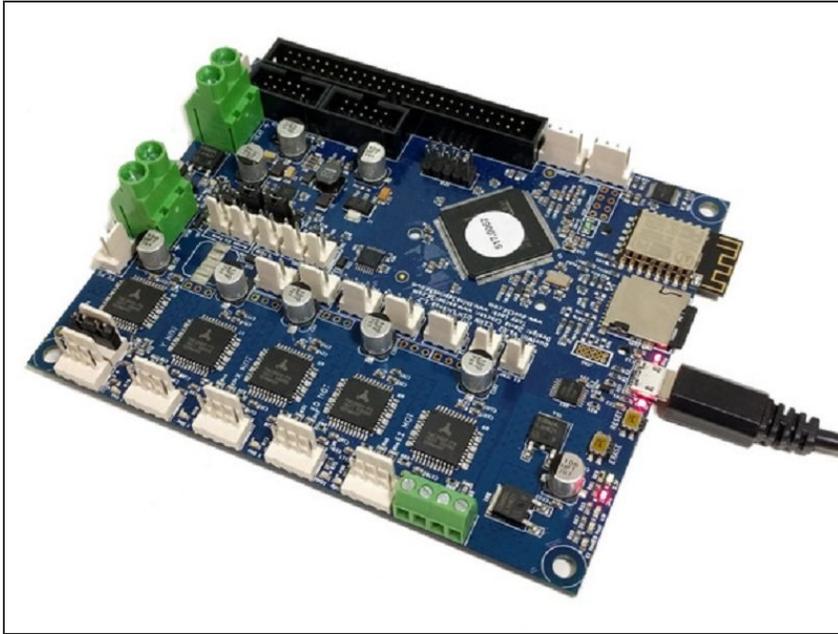
i This update installs version 2.02RTOS, factory stable since 2018. This firmware operates SeeMeCNC printers consistently and reliably.

i Newer firmware service bulletins available [>CLICK HERE<](#)

! IF YOU PURCHASED FULLY ASSEMBLED SEEMECNC PRINTER, DO NOT install new firmware, your printer is ready to use. PLEASE RETURN to the Quick Start Page of our website under the menu item SUPPORT > Quick Start

! Factory supported Firmware Updates for SeeMeCNC printers are only available for download from SeeMeCNC. All other locations on the internet can not be supported by the factory due to the complicated nature of configuring the 3D printers.

Step 2 — Overview



⚠ Firmware updates for your SeeMeCNC printer should only be downloaded as instructed. Improper use of this information may result in personal injury or property damage. SeeMeCNC is not responsible for injury or damage of any kind, including death, by using our website and related information. **USE AT YOUR OWN RISK.**

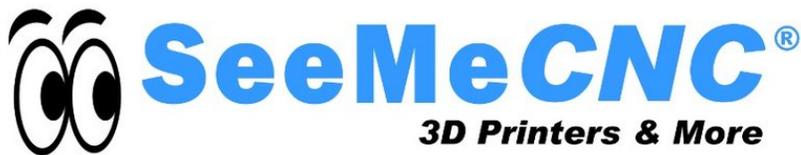
- i** SeeMeCNC tests current firmware downloaded **ONLY** from our repository. This ensures our products operate properly.
- The following steps in this guide will provide instruction how to download these control files from the SeeMeCNC github repository.

Step 3 — Tools Required



- You will need a micro SD to USB adapter to complete this update.
- An example is shown. They come in many varieties. They need to accommodate a micro SD card.

Step 4 — Download Files



- ① Select firmware below by clicking on the name of your machine. The download begins immediately. The

firmware will be the most recent SeeMeCNC approved firmware for your machine.

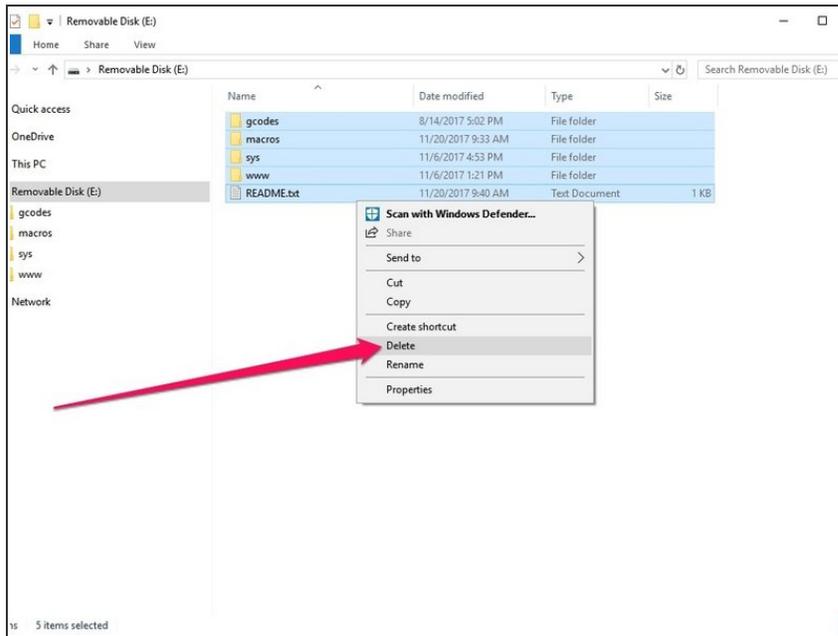
- [BOSSdelta 300](#)
- [RostockMAX v3.2](#)
- [RostockMAX v4](#)
- [Artemis 300](#)

Step 5 — Remove the microSD



- turn off power to your printer
- Push-in to release the micro SD card. In the picture, our fingernail was used to push in to release the micro SD card. It will spring out once released.

Step 6 — Delete all files on micro SD card

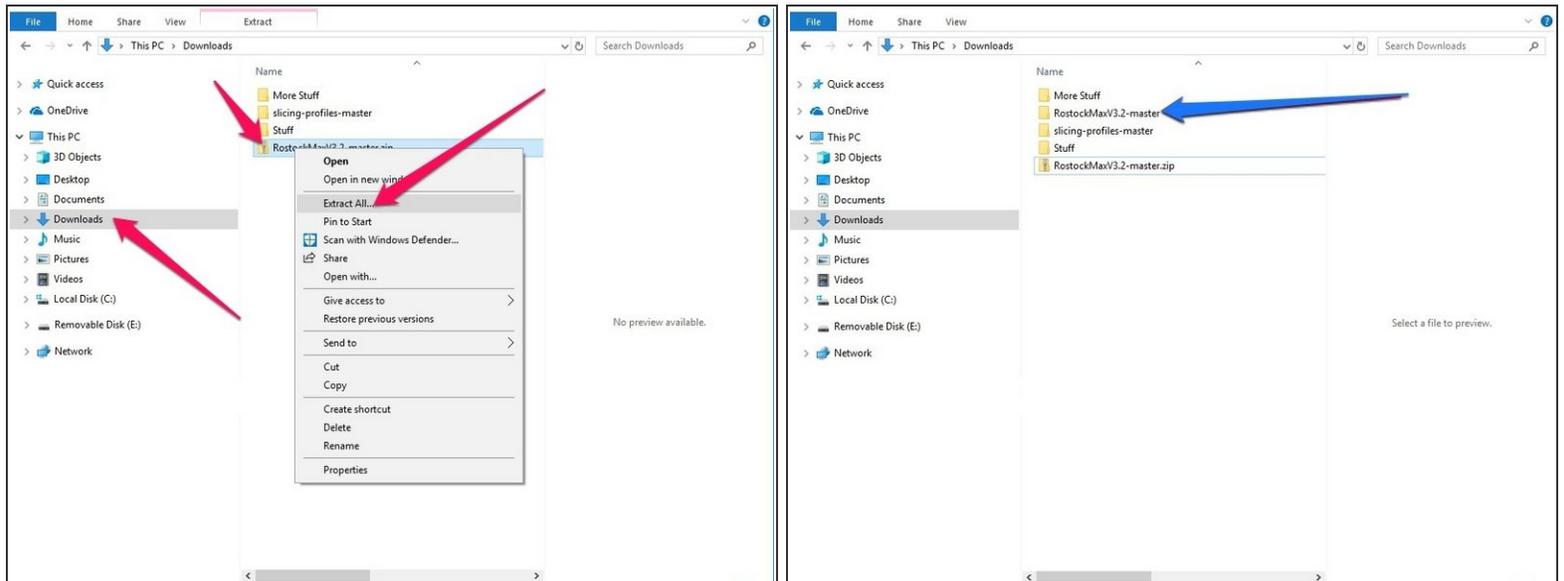


- insert the micro SD in your computer

Warning: Back up the files in the gcodes directory. They will be permanently deleted.

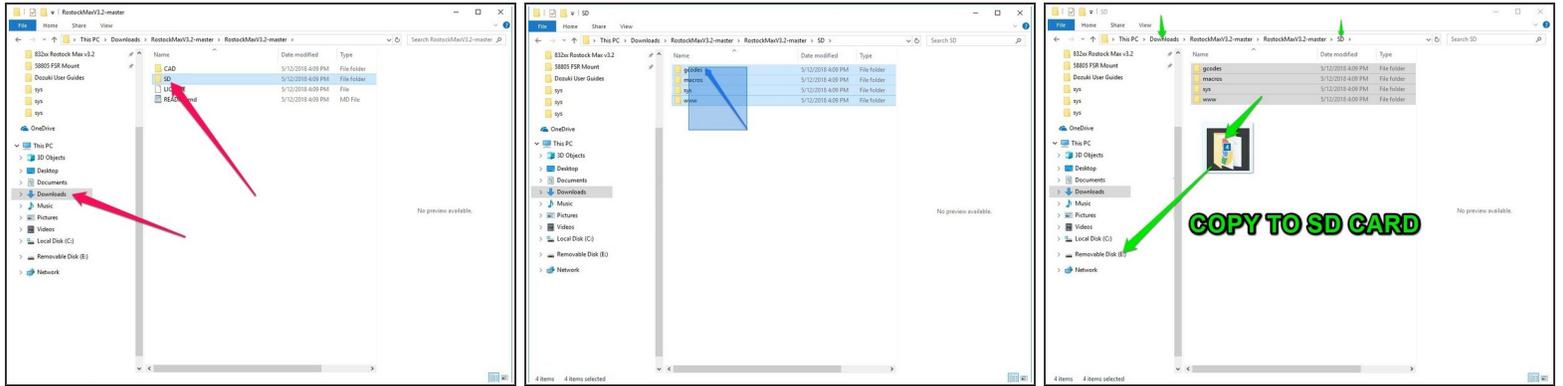
- Delete all files on the micro SD card

Step 7 — Locate downloaded files



- (pic with RED ARROWS) Locate the new firmware files you have downloaded in a previous step in this guide. They're usually located in your downloads folder.
- Extract them from the zipped file. (Usually right click on the zipped download and choose extract)
- (pic with BLUE ARROW) double click on the extracted folder. You may need to open another folder within this extracted folder to see the files.

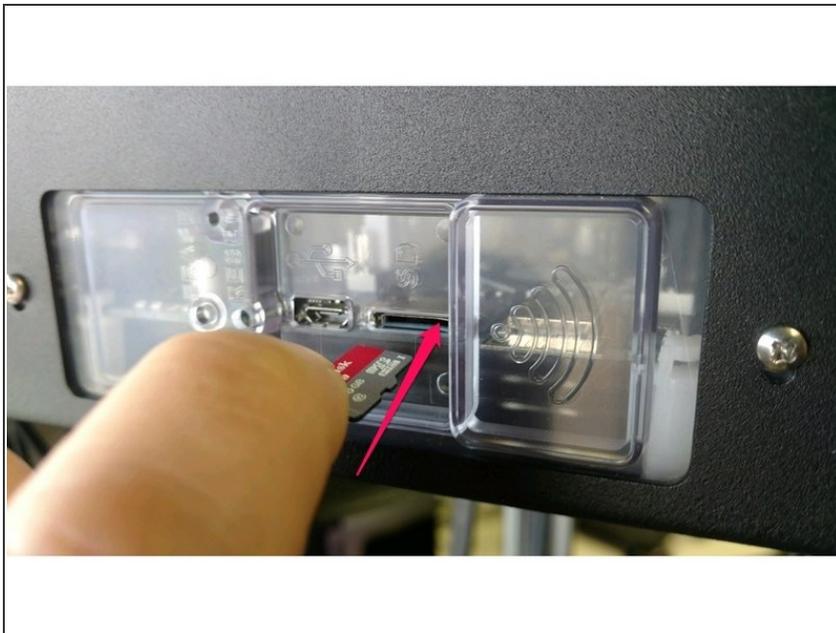
Step 8 — Copy the extracted files



i (RED ARROWS picture) There may be more than one SD card folder in the file download. For example, dual extrusion or WiFi, Ethernet or FSR probe or hotend probe, etc.

- In the downloaded files, open the folder labeled SD for your machine model and features.
- (BLUE ARROW picture) Select all folders. These four folders are the control files for the printer.
- (GREEN ARROW picture) Copy all files to the micro SD card. In the photo, the micro SD card says "Removable Disk (E:)"

Step 9 — replace micro SD card



- Remove the micro SD card from your computer
- Reinstall the micro SD card back into the machine. Note that the SD card will push-in and latch into position.

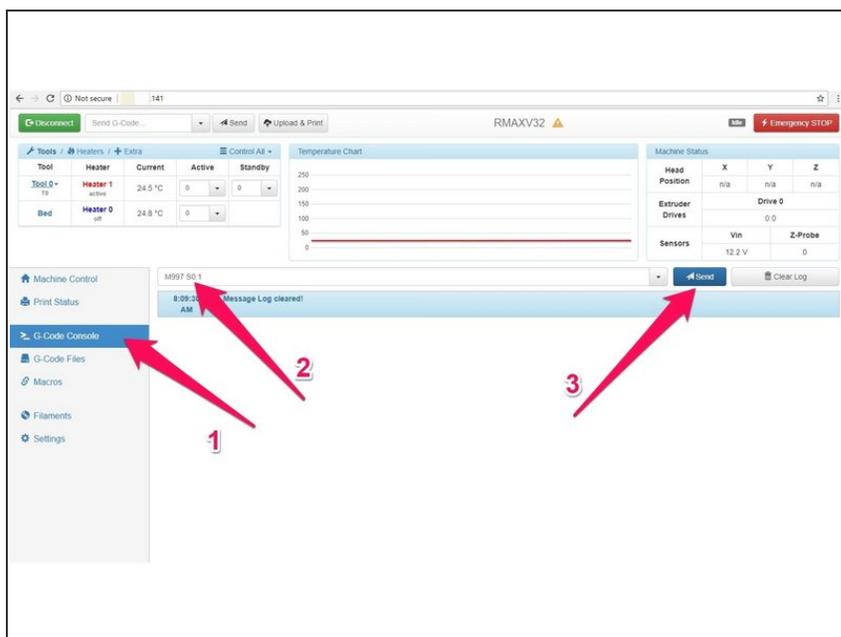
Step 10 — Power On



⚠ If you are follow a machine build guide, please STOP HERE and return to the guide. >>>
Otherwise continue this guide to reset or update your firmware.

- Turn ON the printer and it should sign onto your network.
- Pull up a browser window and try connecting. The WiFi module will usually be re-assigned the same IP address, however the IP address is not static (sorry no way to set static IP) and your router could assign another number.
- ① Please visit our website page under menu item SUPPORT > Quick Start if you need to reconfigure your network connection.

Step 11 — Update Firmware



- **1** Once connected, navigate to the g-code console. Ensure you tell the system to detect your SD card by typing the M21 command
- **2** Enter M997 S0:1 as shown in the pic. This command updates the firmware on the Duet control board. Be patient and do not power off the machine until finished.
- **3** Click Send and wait for a minute or two.

i The DUET board "looks" for a .bin file (downloaded), compares it for new status and updates the firmware on the micro controller automatically. When finished, you will be able to connect with the browser as usual. The DUET firmware update will delete the .bin file from the micro SD card when it is finished updating.

Step 12 — Verify Correct Arms

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; machine delta parameters
G21                ; Work in millimeters
G90                ; Send absolute coordinates
M569 P0 S1        ; Drive 0 goes forwards (X)
M569 P1 S1        ; Drive 1 goes forwards (Y)
M569 P2 S1        ; Drive 2 goes forwards (Z)
M569 P3 S1        ; Drive 3 goes forwards (E0)
M569 P4 S1        ; Drive 4 goes forwards (E1)
M574 X2 Y2 Z2 S1  ; set end-stop configuration (all end-stops at high end, active high)

; Choose an arm length L depending on arms installed and filament printed
; NOTES: delta radius, diagonal rod length, printable radius and homed height
;M665 R144 L289.1 B135 H400 X0 Y0 Z0 ; Standard Injection Molded Arms
M665 R144 L337 B135 H350 X0 Y0 Z0 ; carbon fiber arms length setting

M666 X0 Y0 Z0     ; end-stop offsets in mm

; motion control parameters
M350 X16 Y16 Z16 E16:16 I1 ; Set 16x micro-stepping w/ Interpolation
M92 X80 Y80 Z80      ; Set axis steps/mm
M92 E91.0:91.0      ; Set extruder steps/mm
M906 X1300 Y1300 Z1300 E800:1200 I50 ; Set motor currents (mA) and idle current %
M201 X3400 Y3400 Z3400 E5000 ; Accelerations (mm/s^2)
M203 X15000 Y15000 Z15000 E15000 ; Maximum speeds (mm/min)
M566 X500 Y500 Z500 E2000 ; Maximum instant speed changes mm/minute

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- In the web interface go to Settings at the bottom left, then select the System Editor tab.
- Click on the config.g file and an editing box will pop up.
- Find the area for choosing an arm length as shown in Pic 1.
- There are 2 lines in the configuration, one for carbon fiber arms, one for injection molded arms.
- The ACTIVE line is the one WITHOUT the semi-colon. The line with the semi-colon is NOT active. If your configuration is correct, leave it as is.
- If the line for the arms you have does have the semi-colon at the beginning, you will remove the semi-colon, and add a semi-colon to the beginning of the line that is NOT for your arm configuration.
- Click save at the bottom. The web interface should ask you if you would like to reboot. Choose yes. If it does not ask you after saving, shut the machine off for 30 seconds and turn it back on to load the correct settings.