

## Duplicator 3/4 First Run Experience

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# The Duplicator 3/4 First Run Experience

## Safety Information


1.1 **Caution:** The Duplicator 3/4 generates high temperatures and includes moving parts that can cause injury. Never reach inside the Duplicator 3/4 while it is in operation, and allow time for the Duplicator 3/4 to cool down after operation.

	<b>WARNING</b> <b>Burn hazard. Hot surface inside.</b> Allow to cool before servicing.		Vapors/fumes may be irritating at operating temperatures. Always use the Duplicator in an open, well-ventilated area.
	<b>WARNING</b> <b>Moving parts can crush and cut.</b> Keep hands clear while operating machine.		Do not leave the Duplicator unattended during operation.
			Contact with extruded material may cause burns, wait for printed objects to cool before removing them from the build platform.

The Duplicator 3/4 is sensitive to electrostatic discharge. Make sure you don't have a static charge on you by touching a grounded object before operating The Duplicator 3/4 or attempting any adjustments. If opening The Duplicator 3/4 for service, ensure that the power supply is turned off and the cord is disconnected.

## All set

First, make sure that you've completed all the steps in the Unboxing and Hardware Setup section: your StepStruder MK8 should be bolted in place, your filament guide tubes connected, and your spools of filament mounted on the spool holders. You can plug in your power supply now, too. 2.1

	<b>Don't stack anything on your power supply brick; it can get very hot if it's insulated, and may fail.</b>
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If everything is ready, then flip on the power button on the back of your Duplicator 3/4 and hold onto your hat.

Not literally, though -- if this causes a large gust of wind, you should probably contact tech support

at [support@wanhao3dprinter.com](mailto:support@wanhao3dprinter.com).

The Duplicator 3/4 will now guide you through initial setup and your first print. You should see a welcome message on the LCD screen. 2.2



If you **don't** see something like that, don't worry -- just go to **Utilities->Run Startup Script**. Use the up and down keys to move the cursor and push the **Middle Blue Button** to select. The button is pretty sensitive, so push it gently. Here are a few other things to remember about the **Middle Blue Button** button:

A **Middle Blue Button** means the bot is working. Look at the LCD or application for status. A **blinking Middle Blue Button** means the bot is waiting for user input.

There are four arrow buttons surrounding the **Middle Blue Button**. Use the arrows to navigate and make selections. The left arrow will also often let you go back or cancel an action.

First the startup script will teach you a few basic things about how The Duplicator 3/4 works. Then it will help you level the platform, load filament, and start a test print.

Follow the on-screen instructions to set up your Duplicator 3/4 for the first time! And remember, if anything goes wrong, or things aren't happening the way this guide says they should, check out the Troubleshooting page or get in touch with Support.

## Leveling Your Platform

Pay close attention: leveling your platform is very important to print quality!

Here's the first screen is 3.1



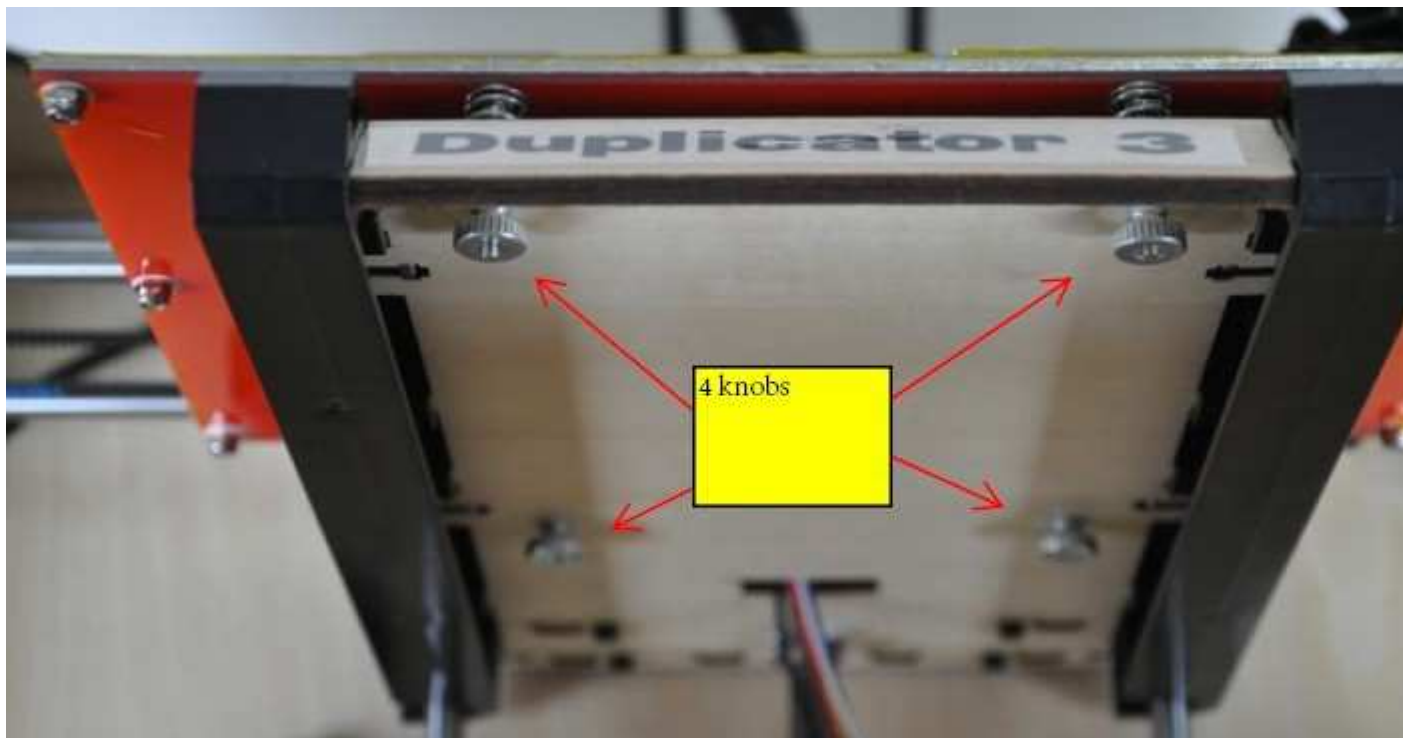
Those three dots mean the message isn't over, so click the blinking **Middle Blue Button** when you've read the screen and want to continue. Then you'll see this 3.2



After you finish reading this message, The Duplicator 3/4 will tell you to tighten the knobs on the bottom of the platform 3.3

Find the 4 knobs on the bottom of the platform and turn to tighten completely.

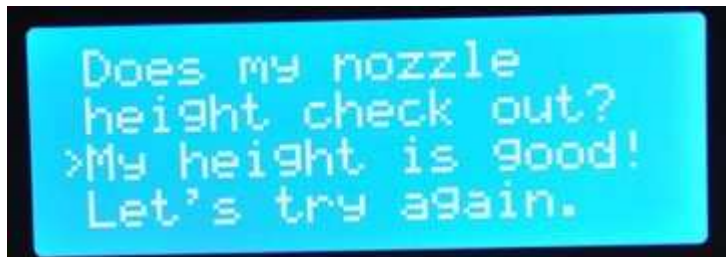
These four knobs are the ones on the bottom of the platform, just inside the plastic arms that hold it up. 3.4 It's actually easier to level the platform if you don't tighten these all the way. Instead, tighten each knob four complete turns. Then press the **Middle Blue Button** button.



It's very important that you always move two knobs during each step -- if you try to move only one knob at a time, the script can have unexpected results. Also, make sure that you're moving the specific knobs the script is telling you to use.

At each stage of the script, your Duplicator 3/4 will ask you to test the platform height by sliding a piece of paper between the platform and nozzle. Your Accessory Box included a business card from Wanhao Support. It's about .12 mm thick, and should work great. If you haven't got the Support card on hand, a sticky note works well, too.

When you're done, The Duplicator 3/4 will ask you if the nozzle height is OK. 3.5



Use the Support card to test the platform height one last time. If the card can move up and down underneath the nozzle, your platform is too low; select "Let's try again." If it can slide around a little bit, you're good to go.

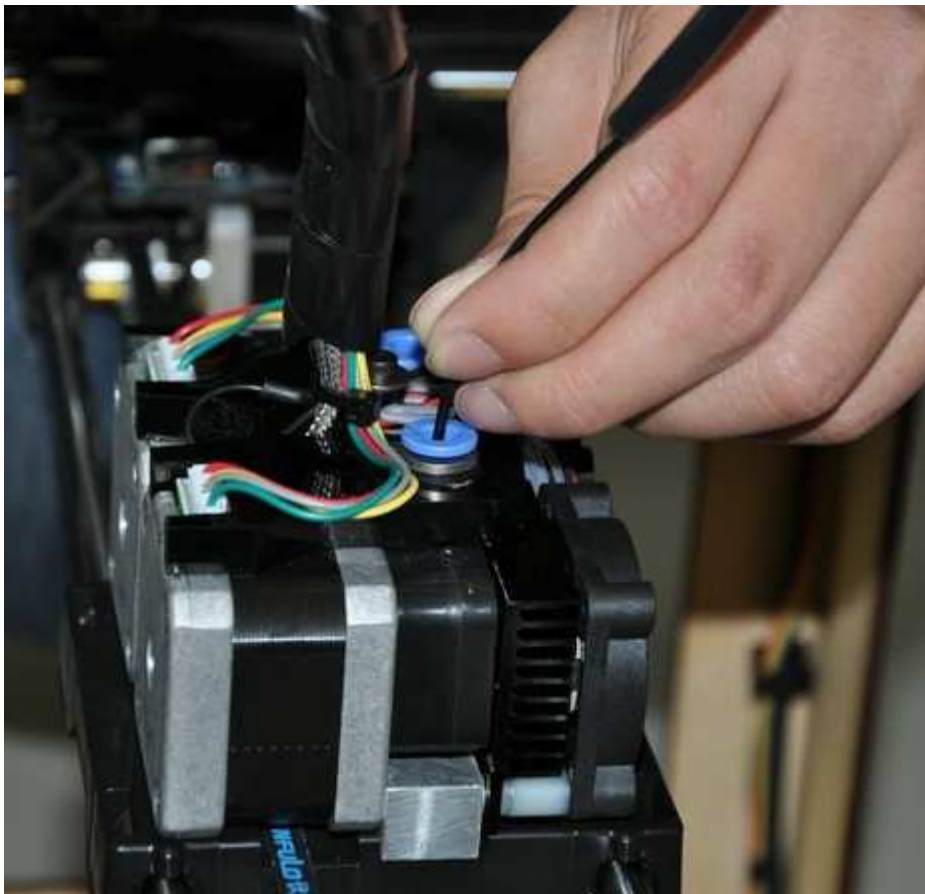
If your platform is too low, your prints might not stick to the surface, and if it's too high, the nozzles could tear the Kapton tape on the platform surface. If you're having trouble, or if you just need to level your platform again, you can always get back to the leveling script in the menu by going to Utilities->Level Build Plate

## Loading Filament

4.1 The first step of filament loading is to remove the filament guide tube(s).

Aaah, that feels  
much better.  
Let's go on and load  
some Plastic!

4.2 Make sure to hold down the Blue ring that connects the tube to the  
Stepstruder-- just pulling on the tube won't work.



Once the tubes are disconnected, you can go ahead and feed the filament into the guide tubes from the back until you see it come out at the front. 4.4



Make sure that the filament loads up from the center on both spools, so you don't get jams during printing. One of the spools will have to go on backwards. You want it to look like 4.3

After you've fed the filament through, press the **Middle Blue Button**. The machine will start to heat both extruders 4.5



I'm heating up my extruder so we can feed the filament through.

You'll have to wait for a few minutes for them to heat up. Be careful not to touch the bottom of the Step extruder while it's heating -- it gets up to about 220° C, which is hot and can burn you! 4.6 - 4.7



## **WARNING**

**Burn hazard. Hot surface inside.**  
Allow to cool before servicing.

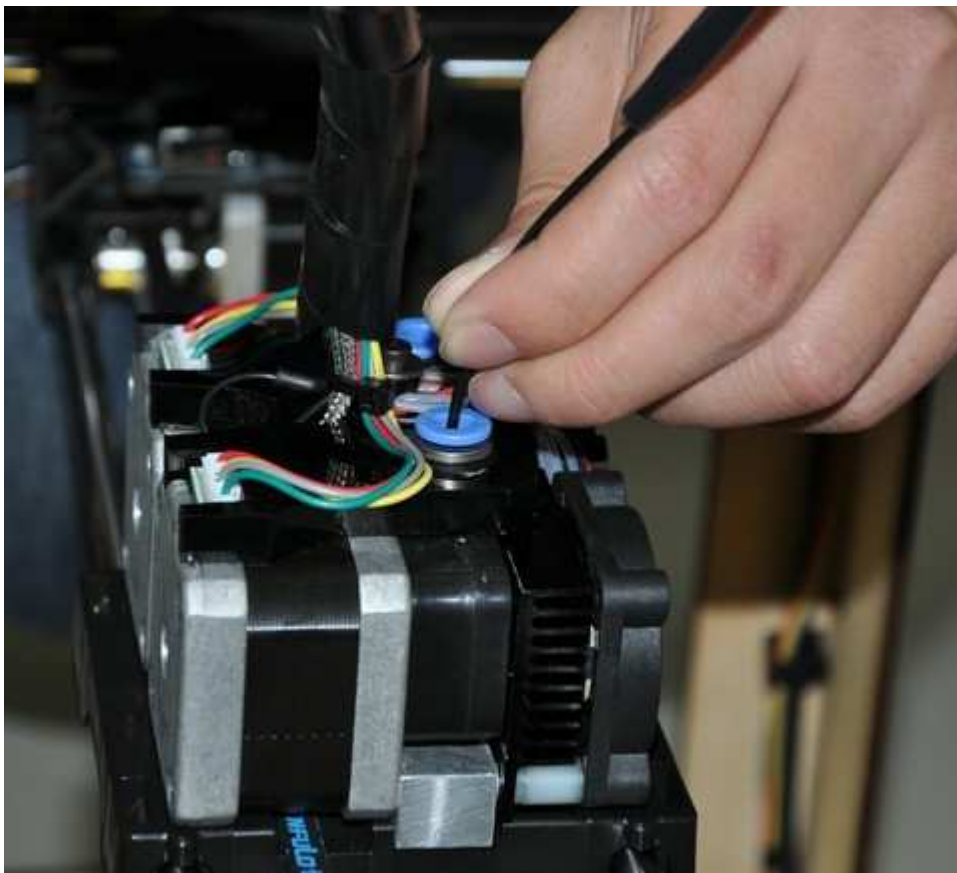


**Contact with extruded material may cause burns, wait for printed objects to cool before removing them from the build platform.**

Once the nozzle is at temperature, The Duplicator 3/4 will tell you to load filament in the right-hand Step extruder. 4.8

OK I'm ready! Push filament in through the grey rings until the motors tug it...

Click through the message until your Duplicator 3/4 asks you to press the **Middle Blue Button** when you see plastic extruding. Then take the end of the filament itself and push it right into the center of the gray ring. Make sure it goes into the center, and doesn't get caught at the edge. 4.9



You'll have to use to use some force, but as long as you're holding only the filament, you can't hurt your Duplicator 3/4.

Maintain pressure on the filament, and after a few moments you should feel the motor pulling it in. Then you'll see some plastic start to come out the nozzle. When that happens, you can press the **Middle Blue Button** and push the guide tubes back into the gray rings. Don't be surprised if you don't see the color you expected -- there's probably still a bit of plastic inside the extruder left over from the testing process.

If you have a dual-extruder machine, The Duplicator 3/4 will now ask you to load filament into the left-hand extruder. Follow the same process you did for the right. After The Duplicator 3/4 is done extruding, wait a moment for the extruded plastic to cool down before you pull it away. You can discard the plastic in your normal garbage, or recycle it, if your recycling system can handle ABS. Don't leave plastic clinging to the extruder nozzle -- if you do, newly extruded plastic might stick to the nozzle instead of the build platform.

The Duplicator 3/4 will give you a couple of chances at this before continuing. If you don't get it quite right the first time, you can load filament from the menu at any time by going to Utilities->Filament Options in the menu.

[4.8]

Your First Print

Now your Duplicator 3/4 will ask you if you're ready to print. 5.1

Make sure your SD card is in the SD card slot at the right side of The Duplicator 3/4. Then, if you've successfully leveled your platform and loaded filament into your extruder, answer yes! The Duplicator 3/4 will drop you into the "Print from SD" menu. Select one of the prints we pre-loaded onto the SD card and watch The Duplicator 3/4 go to work!

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