Frequently Asked Questions about the MakerBot Experimental Extruder

What is a MakerBot Labs Experimental Extruder?

The MakerBot Labs Experimental Extruder is a swappable extruder designed for the advanced user who wants to push the limits of what is possible on their MakerBot 3D Printer. It is compatible with all MakerBot 3D Printers 5th Generation and newer.

How is the Experimental Extruder different from the MakerBot Smart Extruder+?

The Experimental Extruder and the Smart Extruder+ are built on the same platform of technology. Both incorporate a positioning sensor for automated Z-homing, a filament detection sensor for pausing in an absence of filament, and a jam detection sensor that pauses when filament stops moving through the extruder. The main difference is that the Experimental Extruder was designed to specifically enable the swapping of nozzles. With a flattened wrench seat on the thermal core and a more secure thermal barrier tube, the Experimental Extruder was redesigned to make changing nozzles a breeze. Additionally, the Experimental Extruder includes four interchangeable nozzles and two wrenches for nozzle swapping. The Experimental Extruder is not covered by MakerCare, MakerBot Support, or warranty.

When would I use an Experimental Extruder vs a Smart Extruder+?

The Smart Extruder+ should be used when you are looking to have an easy, reliable experience using MakerBot PLA. The Experimental Extruder is designed for advanced users only. It should be used if you are looking to experiment with 3rd party materials, test custom APIs, or configure the extruder with different nozzles.

I have more than one MakerBot Replicator 3D Printer. Will the same Experimental Extruder work for all of them?

Yes. The Experimental Extruder is designed to work with MakerBot Replicator (5th Generation and newer) 3D printers. Minor adjustments are necessary to ensure your Experimental Extruder is correctly configured for the MakerBot Replicator(+), Replicator Mini(+) or the Replicator Z18 3D printers. Refer to the Quick Start Guide (available in the box and online at www.makerbot.meatballs) for details on configurations.

What do I need in order to use the Experimental Extruder?

In order to use the Experimental Extruder you must have one or more of the following 3D printers - MakerBot Replicator Mini, Replicator Mini+, Replicator (5th Gen), Replicator+, or Replicator Z18. You should also have

What materials work with the Experimental Extruder?

We have seen our users have success with ColorFabb® Corkfill, ColorFabb® Bronzefill, ColorFabb® Copperfill, and ColorFabb® Woodfill to name a few. Visit makerbot.com/labs to find and download user generated third-party material print modes. We recommend testing with small quantities of filament before stockpiling.

How long will my Experimental Extruder last? What are signs of Experimental Extruder wear?

The Experimental Extruder is an experimental product designed to be hacked, modified, and tested. Due to its nature of being open to a wide range of community-generated material profiles that have not undergone extensive QA testing and verification we cannot provide a data-backed lifetime. Different materials may wear out components at different rates and with differing effect - refer to makerbot.com/labs for additional information.

What is the warranty period and return policy of the Experimental Extruder?

The Experimental Extruder is not covered by MakerCare, MakerBot Support, or warranty due to the fact that it is experimental and designed to be hacked, modified, and to print with unverified 3rd-party materials. There is a 30-day return policy with 10% restocking fee for this product.

Will MakerBot's Technical Support Team be available for help/questions on the Experimental Extruder?

No. The Experimental Extruder will not be supported by the MakerBot Technical Support Team. Resources, content, and support can be accessed through the MakerBot Labs Community.

Can I get my Experimental Extruder repaired?

Since this is an unsupported product, we do not offer repair on it. Refer to makerbot.com/labs to find resources and tips on maintenance and self-repair.

Can I use a USB drive to print with the Experimental Extruder?

To slice a print for the Experimental Extruder you must be connected to the printer via USB cable, WIFI, or ethernet with the Experimental Extruder attached to the printer. At this point you can print directly to the printer, or if you would prefer to export to a USB drive - simply click the Print Preview button, allow the process to complete, then select File > Export. You now have a .makerbot file that is ready to print with the Experimental Extruder.

How do I access the 35 additional custom print settings for the Experimental Extruder?

The additional print settings will be automatically unlocked in the custom print modes section of MakerBot Print when you are connected to a printer equipped with the Experimental Extruder via USB Cable, WIFI or ethernet. These additional settings will be marked with an extruder icon containing an "E". Custom profiles that contain changes to these settings will be marked with the same icon. More information on custom print modes can be found here.

Where can I find more resources for my Experimental Extruder?

You can find resources such as tips, tricks, custom profiles, and more on makerbot.com/labs. You can also post questions, engage in forum discussions, and get answers from the community.

Does MakerBot have new materials they are offering for the Experimental Extruder?

No, however, it is designed to be used with materials from third-party vendors. Visit makerbot.com/labs for material profiles and additional resources.

Does MakerBot sell individual nozzles, wrenches, or other components of the Experimental Extruder?

No. Components are only available with the purchase of the complete Experimental Extruder. For additional hardware recommendations and mods please refer to makerbot.com/labs.

Can't I just modify my existing Smart Extruder+ to print in other materials?

The Smart Extruder+ and Tough Filament Extruder are not designed for changing nozzles. Attempting to change nozzles could damage other components within these extruders. Additionally, by connecting the Experimental Extruder to your MakerBot 3D printer you are able to unlock 30+ exclusive advanced print parameters within MakerBot Print. Printing in third-party filaments with the Smart Extruder+ or the Tough Filament Extruder will void their warranties.

Will I need to buy the Experimental Extruder separately?

Yes. All printers ship with a Smart Extruder+ which provides a reliable experience and makes it easy to get up and running very quickly. The Experimental Extruder is sold separately.

What is the difference between the Experimental Extruder and Replicator 2X "Experimental" printer?

The Replicator 2X is a fourth Generation MakerBot 3D printer whereas the Experimental Extruder is designed to allow fifth generation and newer MakerBot 3D printers to be used for further exploration.