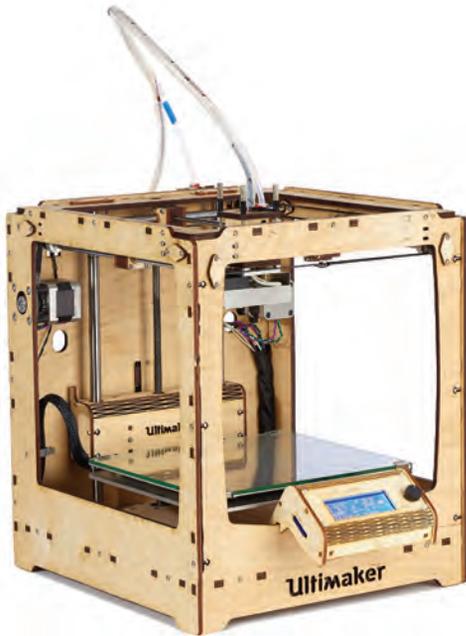


# ULTIMAKER ORIGINAL+

Same great kit, now with a heated glass bed

WRITTEN BY YVES SINNER & NICK PARKS



## Ultimaker Original+ | [ultimaker.com](http://ultimaker.com)

- Price as Tested \$1,600 (kit)
- Build Volume 210×210×205mm
- Bed Style Heated glass
- Temperature Control? Yes
- Materials PLA, ABS (others encouraged)
- Print Untethered? SD card, OctoPrint compatible
- Onboard Controls? Yes
- Host Software Cura
- Slicer CuraEngine
- OS Mac, Windows, Linux
- Open Software? Cura/CuraEngine: AGPLv3
- Open Hardware? Auxiliary files: CC BY-NC 3.0

### RELEASED JUST OVER THREE YEARS AGO, THE ULTIMAKER ORIGINAL KIT JUST KEEPS GETTING BETTER.

The Original+ has a slew of enhancements that include a heated glass bed (upgrade kit available), an improved Z-axis, new electronics, and Ulticontroller onboard controls with SD card are now included.

### BUT THAT'S NOT ALL ...

Another welcomed improvement is the move to a 3-point bed leveling system, which is much easier and quicker than the previous 4-point bed adjustment system. Additionally, there have also been changes to the extruder. The polypropylene fan duct has been replaced with a sturdy metal one and new plastic spacers and clips are used in the assembly of the hot end. Our test machine was fully assembled (and a prototype, which may have hurt XY, Z scores) but judging from our personal kit build experiences, this redesigned extruder will be significantly easier to build.

### PERIODIC MAINTENANCE

The overnight prints on this machine

performed extremely well and reliable.

One thing we did notice was that one of the nuts was a little loose when we came in the next morning. Experience using other Ultimaker Originals for the last two years has shown that it's important to tighten all of the nuts every three to six months.

### LET THERE BE LEDS?

The only thing that this machine might be missing is a lighted build platform. That is one of the many things that the Ultimaker 2 did extremely well, and it seemed to be a big hit. I imagine that Ultimaker will eventually release a lighting kit or, perhaps, *Make: Projects* will come up with a clever tutorial on how to light up this machine.

### CONCLUSION

This printer packs a huge value. It puts a huge build volume, refined quality, reliability, and incredible speeds into a continually upgradable, well-supported machine. It may not be as sleek as the Ultimaker 2, but at nearly half the price (\$1,600) it's a great bargain. With its low maintenance and high performance, this hackable machine is great for any maker. 🛠️

## PRINT SCORES

|                   |      |      |   |   |   |
|-------------------|------|------|---|---|---|
| ● Accuracy        | 1    | 2    | 3 | 4 | 5 |
| ● Backlash        | 1    | 2    | 3 | 4 | 5 |
| ● Bridging        | 1    | 2    | 3 | 4 | 5 |
| ● Overhangs       | 1    | 2    | 3 | 4 | 5 |
| ● Fine Features   | 1    | 2    | 3 | 4 | 5 |
| ● Surface Curved  | 1    | 2    | 3 | 4 | 5 |
| ● Surface General | 1    | 2    | 3 | 4 | 5 |
| ● Tolerance       | 1    | 2    | 3 | 4 | 5 |
| ● XY Resonance    | FAIL | PASS |   |   |   |
| ● Z Resonance     | FAIL | Pass |   |   |   |

## PRO TIPS

Regularly retighten nuts on the sliding blocks and the extruder, they tend to loosen.

## WHY TO BUY

Continually upgradable, extremely fast and reliable printing, excellent hackability, great surface finish, large build area, heated glass, low maintenance.

## How'd it print?



**YVES SINNER** is a Luxembourg/Europe-based blogger, 3D-printing enthusiast, innovation expert, and start-up advisor. You can follow him and his brother Michel on [3Dprintingforbeginners.com](http://3Dprintingforbeginners.com).



**NICK PARKS** is an engineering intern at *Make: Labs* and is studying mechanical engineering at Santa Rosa Junior College.