

# Ultimaker 3 Extended





## Dual Extrusion with Ultimaker Precision

With dual extrusion, the new Ultimaker 3 can easily tackle even the most complicated or intricate geometries with dissolvable support materials. You can also print objects with dual colors or dual materials. The Ultimaker engineering team approached dual extrusion by introducing a unique, automatic nozzle-lifting mechanism. While one nozzle is emitting material, the other nozzle is kept clear of the print job. You can expect far higher quality, much more professional finishes with every print job.



## Swappable Print Cores

The Ultimaker 3 introduces smart, swappable print cores that can be switched in a matter of seconds. For additional safety and monitoring, the print cores contain LED indicator lights. Print cores will report when a nozzle is hot or cold, or when an incorrect material is loaded.

New units ship with two "build cores" and one "support core" that is optimized for 3D printing with PVA for dissolvable supports.



### **Active Leveling and Increased Print Bed Rigidity**

A capacitive sensor in the print head will detect even the slightest tilt angle in the print bed. The Ultimaker 3 automatically compensates by adjusting the z-height of the first layers. This leads to far more accurate leveling and better build plate adhesion.

### **Newly-refined Build Plate Design**

The Ultimaker 3 features a new build plate design, that's twice as rigid, and 20% lighter. This leads to reduced vibrations, and increased print quality. Also, like earlier-model Ultimakers, the glass plate is easily removed for handling jobs and cleaning. And the bed can still be heated to 100 Celsius for maximum print adhesion.



### **Geared Feeders and Increased Cooling**

Geared feeders exert more force on the filament, and also eliminate heat exposure from the motor. Change your 3D printing materials with ease, select the correct pressure with a push on a button, and use the lever function to manually insert or remove a filament.

### **New and Improved Cooling System**

The Ultimaker 3 comes with new fans, which are encased in newly designed fan shrouds. The new cooling system creates significant pressure build up, which provides better cooling for your prints. Expect improvements in the quality of 3D prints with "bridging", and reduced noise levels.

# Ultimaker 3 Extended Specifications

## Printer and printing properties

Technology	<b>Fused Deposition Modeling (FDM)</b>
Print head	<b>Dual extrusion print head with a unique auto-nozzle lifting system and swappable print cores</b>
Build volume	<b>Left nozzle: 215 x 215 x 300 mm Right nozzle: 215 x 215 x 300 mm Dual material: 197 x 215 x 300 mm</b>
Filament diameter	<b>2.85 mm</b>
Layer resolution	<b>0.4 mm nozzle: 20 - 200 micron</b>
XYZ accuracy	<b>12.5, 12.5, 2.5 micron</b>
Print head travel speed	<b>30 - 300 mm/s</b>
Build speed	<b>0.40 nozzle: up to 16 mm<sup>3</sup>/s</b>
Build plate	<b>Heated glass build plate</b>
Build plate temperature	<b>20 - 100 °C</b>
Build plate leveling	<b>Active leveling</b>
Supported materials	<b>Nylon, PLA, ABS, CPE, PVA</b>
Nozzle diameter	<b>0.4 mm</b>
Nozzle temperature	<b>180 - 280 °C</b>
Nozzle heat up time	<b>&lt; 2 min</b>
Build plate heat up time	<b>&lt; 4 min (20 - &gt; 60 °C)</b>
Operating sound	<b>50 dBA</b>
Material recognition	<b>Material recognition with NFC scanner</b>
Connectivity	<b>Wi-Fi, LAN, USB port</b>
Monitoring	<b>Live camera</b>

## Physical dimensions

Dimensions	<b>342 x 380 x 489 mm</b>
Nett weight	<b>10,6 kg</b>
Shipping weight	<b>15,5 kg</b>
Shipping box dimensions	<b>390 x 400 x 680 mm</b>

## Power requirements

Input	<b>100 - 240V 4A, 50-60Hz 221 W max.</b>
Output	<b>24 V DC, 9.2 A</b>

## Ambient conditions

Operating ambient temperature	<b>15 - 32 °C, 10 - 90% RH non condensing See material specifications for optimal conditions</b>
Nonoperating temperature	<b>0 - 32 °C</b>

## Software

Supplied software	<b>Cura, our free print preparation software</b>
Supported OS	<b>macOS, Windows and Linux</b>
File types	<b>STL, OBJ and 3MF</b>

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