

# UltiMaker Factor 4

An end-to-end application solution, UltiMaker Factor 4 is tailored for the development, production, and full-confidence deployment of process-critical tools and machine components. Factor 4 keeps operations running, simplifying processes in factories, and reducing human-triggered variabilities. It streamlines factory floor operations with its large effective build volume, direct dual material extrusion, and onboard print process reporting to achieve unrivaled predictability and minimal variance.



## UltiMaker Factor 4 specifications

|   |                             |   |
|---|-----------------------------|---|
| <b>Printing properties</b>                | Technology                  | Fused deposition modeling (FDM)   |
|   | Extrusion system            | Dual-extrusion, direct drive print head with unique auto-nozzle lifting system and swappable print cores  |
|   | Build volume                | Single material printing: 330 x 240 x 300 mm (13 x 9.4 x 11.8 in)<br>Dual material printing: 330 x 240 x 300 mm (13 x 9.4 x 11.8 in)  |
|   | Filament diameter           | 2.85 mm   |
|   | Print profiles availability | 14+ UltiMaker materials<br>250+ UltiMaker Marketplace materials   |
|   | Dimensional accuracy        | ± 0.2 mm ± 0.2% feature nominal length<br>For detailed conditions visit <a href="https://ultimaker.com/factor4">ultimaker.com/factor4</a>   |
|   | <b>Hardware properties</b>  | XYZ resolution  |
| Homing sensor                             |                             | Optical   |
| Build plate                               |                             | PEI-coated flexible build plate   |
| Build plate temperature                   |                             | Up to 120 °C (248 °F)   |
| Build volume temperature                  |                             | Actively controlled up to 70 °C (158 °F) with nozzle plane temperature uniformity within:<br>± 3 °C (5.4 °F) for temperatures < 50 °C (122 °F)<br>± 5 °C (9 °F) for temperatures < 70 °C (158 °F) |
| Extrusion flow                            |                             | Closed loop flow compensation   |
| Max. extrusion temperature                |                             | 280 °C (536 °F): Print core AA, BB, DD<br>300 °C (572 °F): Print core CC<br>340 °C (644 °F): Print core HT  |
| Closed loop fans                          |                             | Air filtering fan, air recirculation fans, print cooling fans, print core cooling fan   |
| Compatible print cores                    |                             | Print core AA (0.25 mm, 0.4 mm, 0.8 mm)<br>Print core BB (0.4 mm, 0.8 mm)<br>Print core CC (0.4 mm, 0.6 mm)<br>Print core DD (0.4 mm) – available in selected regions<br>Print core HT (0.6 mm)   |
| Material handling system capacity         |                             | 6 bays with NFC recognition (max. 1 kg spool size)  |
| Material handling system humidity control |                             | Average relative humidity < 15% in all operational conditions   |
| Microparticulate filtration system        |                             | HEPA H13  |
| Emission rate (UFP & VOC)                 |                             | UltiMaker filaments below limits listed in UL-2904  |
| Monitoring                                |                             | HDR (high dynamic range) 1920 x 1080 px HD camera   |
| Display                                   |                             | 7-inch touchscreen (resolution 1024 x 600 px)   |

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|                              |                         |  |
|------------------------------|-------------------------|--|
|                              | Connectivity            | Wi-Fi 2.4 & 5 GHz: IEEE 802.11a/b/g/n/ac<br>LAN: Gigabit Ethernet<br>USB: 2.0  |
|                              | System on module        | NXP i.MX8 Mini Quad (4x 1.8 GHz), ARM Cortex-A53, 2 GB LPDDR4<br>16 GB eMMC  |
|                              | Real time controller    | i.MX RT1064, Arm Cortex-M7 600 MHz, 1 MB SRAM  |
|                              | Power requirement       | 100–240 V AC, 50–60 Hz max., 6A  |
| <b>Physical dimensions</b>   | Dimensions              | 695x605x1287 mm (27.5x24x51 in)  |
|                              | Weight                  | 120 kg (265 lbs)   |
|                              | Shipping dimensions     | 760x800x1587 mm (30x31.5x62.5 in)  |
|                              | Shipping weight         | 137 kg (309 lbs)   |
| <b>Ambient conditions</b>    | Operating sound         | < 50 dBA in operation  |
|                              | Operating environment   | Operating: Temperature: 18 °C – 30 °C (64 – 86 °F), humidity: 30 – 70% RH<br>Storage: Temperature: 5 °C – 40 °C (41 – 104 °F), humidity: 20 – 90% RH |
| <b>Software</b>              | Print job preparation   | UltiMaker Cura 5.7.1 or newer  |
|                              | Print job management    | UltiMaker Digital Factory  |
|                              | File types supported    | UltiMaker Cura: STL, OBJ, 3MF<br>Printable formats: G, GCODE, UFP, STEP  |
|                              | System requirement      | Windows 7 (64-bit)<br>Mac OS X 10.12<br>OpenGL 2.1<br>4 GB RAM (8 GB recommended)  |
|                              | Print process reporting | Supported  |
| <b>Safety and compliance</b> | Security                | Active firewall<br>PIN code settings protection  |
|                              | Warranty period         | 12 months limited warranty   |
|                              | Certifications          | For a detailed list of certifications visit <a href="https://ultimaker.com/factor4">ultimaker.com/factor4</a>  |
|                              | Safety features         | Red stop button immediately stops motion and heat sources<br>Open door sensor pauses motion and extrusion  |

## What does our unique platform include?



3D printers that achieve fast ROI



Click and print with over 310 materials



Secure cloud software for easy remote printing



Global access to expert support and learning