

Ormerod 2

Description

RepRapPro Ormerod 2 Full 3D Printer

The RepRapPro Ormerod 2 complete 3D printing kit offers extensive versatility and functionality in an easy to assemble kit of parts. 3D printing enables electronics and mechanical engineers to create quick-turn-around prototypes and save months in the design cycle.

Using a process known as fused filament fabrication (FFF), the Ormerod builds 3-dimensional objects in a variety of colours and plastics. FFF can create almost any shape which can be modelled on a computer, including some which could not be produced by traditional manufacturing techniques at all.

The RepRapPro Ormerod is a single colour 3D printer

Full open-source self-replicating RepRap

New 32-bit Arduino-compatible Duet electronics enable control via a web-browser

Wiring loom for simple plug-in connection – no soldering

IR probing, with ambient light compensation, for self-aligned printing – no bed adjustment required

Build volume: 200x200x200mm

Overall size: 500x460x410mm

Printing materials: ABS, PLA, 1.75mm diameter thermoplastic

Build surface: Glass covered PCB-heated bed to reduce complexity of assembly and to ensure parts do not warp

Computer interface: Ethernet, USB

X-carriage: Three Z-adjustable deposition head mounts; one head supplied

Motion: Linear ball bearings on X, Y and Z axes

Pre-soldered electronics with built-in microSD card slot for standalone printing.

Enhancements to the printed parts to improve the ease of assembly of the X and Y axes

The Reprap software should run on a fairly low powered PC, so long as it can run at least Windows XP or higher (Windows 7 and 8 are fine), or Ubuntu 12.04 or higher. However, the faster the better.

Under Mac OS X, 10.6.8 is the minimum requirement, which means the Intel processor-based Macs. This excludes all the old PowerPC (G4, G5) Macs, which have a different architecture, so the software won't run on them

Note

The RepRapPro Ormerod is shipped as kit of parts containing all the components required to get you printing. Full assembly is required

Technical help can be found by contacting the RS Helpline

Supplied with

All printed parts

All hardware (threaded and smooth rods, screws, nuts, washers, belts, bearings etc)

Pre-soldered and programmed electronics

MicroSD card + adapter

Heated PCB build surface

Motors

Nozzle assembly and extruder drive mechanism

100m of 1.75mm diameter PLA filament (approx 300g) for printing with

Plugs supplied (US, EU, UK, & AUS)

Software to run the machine is also provided with both, including the firmware for the electronics

1x reel of filament - colour White

Specifications

Accuracy	0.1mm	
Build Volume	200 x 200 x 200mm	
Building Speed	1800mm/min	
Connectivity	Ethernet, MicroSD Card, USB	
Deposition Rate	33cm ³ /hr	
Dimensions	500 x 460 x 410mm	
Filament Diameter	1.75mm	
Filament Material	ABS, PLA, Thermoplastic	
Layer Resolution	0.01mm	
Nozzle Size	0.5mm	
Number of Colours	1	
Operating Voltage	100-240V	

Improvements over previous versions

Y carriage

- Belt location and retention improved
- Easier belt tension adjustment
- Y motor now the same way round as the other two axes Build Bed
- Much easier bed level adjustment

Bed probe

- Differential 4-wire probe
- Much less interference from ambient light
- More accurate

Extruder

- Much easier access for cleaning
- No problems when run in reverse after being poorly assembled

Power Supply

- Worldwide universal voltage
- Compact - no trailing wires
- Integrated into the machine - not a separate box
- Dedicated 12V supply; not an adapted computer power supply
- No power distribution PCB needed

Emissions Control

- Fully shielded design
- Class A CE mark

Software

Better web interface
Higher quality prints from better motion control
Backwards compatible with Ormerod 1

General

Simpler assembly
Better instructions
More integrated and simpler wiring looms