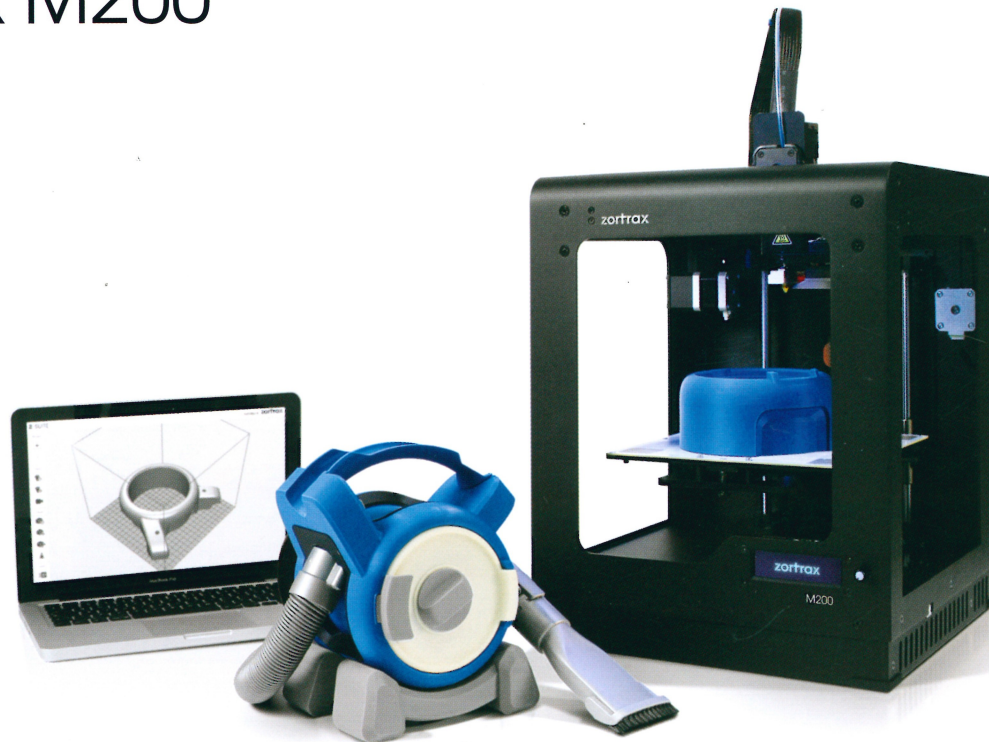


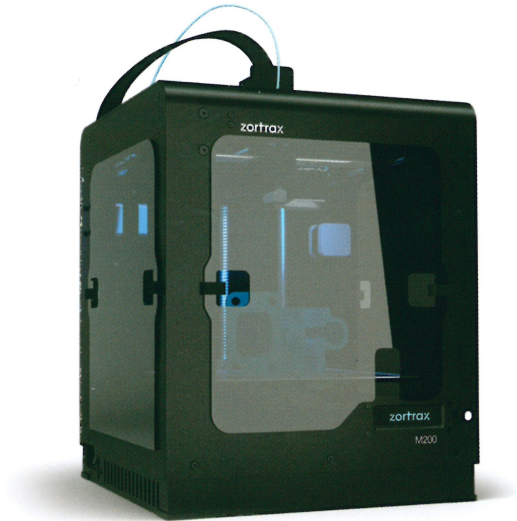
# zortrax M200<sup>®</sup>



Enter an environment  
of professional 3D printing

# Introduction

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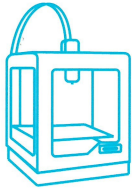
## Meet the Zortrax M200®

Zortrax M200® 3D printer transforms virtual projects into three-dimensional reality. It is used to prototype and create various three-dimensional models.

3D printing can be utilized to prototype mechanical elements, structures, industrial molds and templates, objects of everyday use and promotional gadgets.

# M200 Printer Environment

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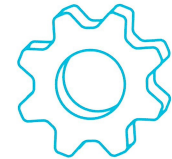
Zortrax M200®  
3D Printer



Dedicated Filaments



Z-SUITE® Software



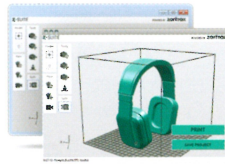
Technical Support

# How Does Zortrax M200<sup>®</sup> Work



## Preparing the Model

Work with the model can be initiated in any 3D program of choice which creates 3D graphics and supports .stl file format. The next step is to export the created CAD file to this format.



## Z-Suite<sup>®</sup> Software

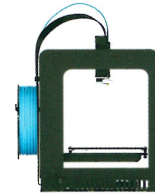
Z-Suite<sup>®</sup> is an application which prepares 3D models for printing. It allows the actual parameters of the model to be adjusted, such as: size, layer thickness or generating reinforcement material (support).

Z-Suite<sup>®</sup> prepares the model by generating a project and saving it in .zcode<sup>®</sup> format, which is then ready to be printed using the Zortrax M200<sup>®</sup> 3D printer.



## Transferring the Model

In order to export the model to the printer, it is sufficient enough to save the .zcode<sup>®</sup> file generated in Z-Suite<sup>®</sup> onto an SD card and insert it into the reader on the printer.



## Uploading the Filament

The following step is to upload the filament

Dedicated Z-Filament Series, such as Z-ABS<sup>®</sup> and Z-ULTRAT<sup>®</sup>, are available in several color options. New types of filaments with different physical qualities are coming soon.



## Initiating the Printing Process

Printing is initiated after selecting a model from the SD card inserted into the reader. The printer menu and file catalog are brought up on the display which is operated by the control knob.

After choosing a file and pushing the control knob in, the printing process begins.



# M200 Qualities

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## Integrated Printing Environment

- » Layer Plastic Deposition technology makes use of materials with different physical qualities
- » Dedicated Z-ABS® filament guarantees high quality prints
- » Z-Suite® Software works with most CAD modeling programs

## Wide Variety of Materials

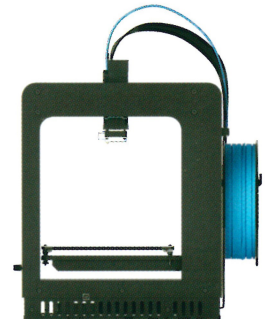
- » Many colors of Z-Filament Series and low printing cost
- » Z-ABS®, Z-ULTRAT® – ideal materials to paint and treat, both mechanically and chemically
- » Coming soon, implementation of a wide assortment of materials:  
Z-PCABS®, Z-NYLON™, Z-FLEX™, Z-GLASS™, Z-ALU™

## Dedicated Software

- » Intuitive interface which allows importing files in .stl format
- » Ability to print offline thanks to the built-in SD Card Reader
- » Software is compatible with Windows and Mac OS X

## Useful Technical Parameters

- » Large build space, dimensions: 200 x 200 x 185 mm
- » Possibility to print using a wide range of resolutions
- » Technologically advanced, perforated plate with an automated point calibration system



# The Technology

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## Build Volume

A surface of 200 x 200 x 185 mm allows large objects to be printed. Due to LPD technology, even the largest models are not subject to deformation. This allows printing a complete object or its smaller parts, which fit together perfectly after being assembled.

## Layer Plastic Deposition (LPD)

Integrating key elements (printer construction, dedicated Z-Suite® Software and a line-up of filaments) enabled creating a new printing technology – LPD – thanks to which the models can be reproduced with more detail. The precise process of applying filament layer by layer allows printed models to be used as prototypes of objects created further with injection molding technology.

## Single Extruder Support (SES)

Zortrax M200® automatically generates reinforcement material (so-called support). It is a key factor in printing complicated models with elements located under the build plate. Support material is applied using the same extruder, which eliminates the need for additional spools with filament. The support is easy to remove, leaves no traces on the printed object and does not damage it.



## SD Card Reader and Display

The card reader ensures a quick transfer of the model to the printer. The built-in display has all the functions necessary for easy and fast operation of the machine, such as: choosing a model, uploading filament, calibration and a printing progress bar.

# Platform

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## Dual Raft Surface (DRS)

The layer generated as the first when printing the support. The raft ensures that the model is firmly fixed in place on the build plate. This layer protects the print from deformations and increases the level of detail.

## Perforated Surface

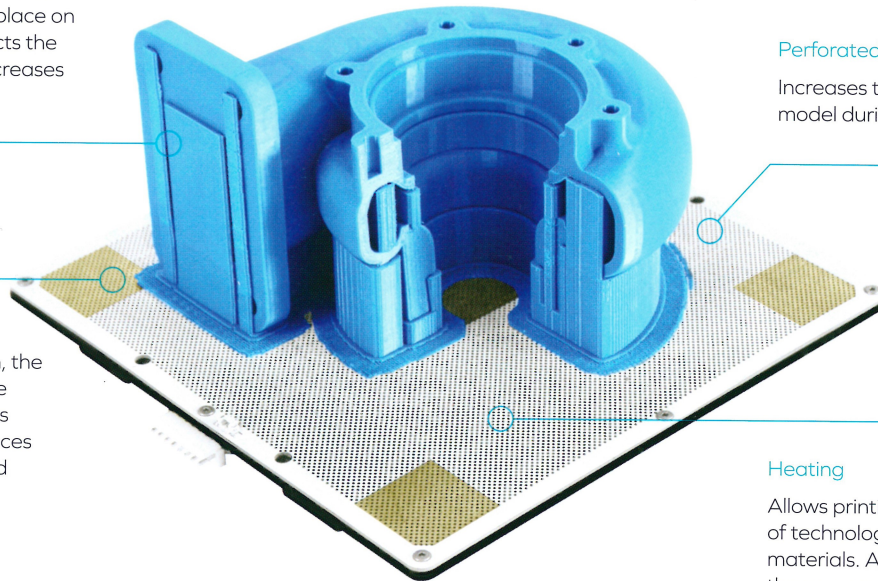
Increases the adhesion of the model during printing.

## Auto-calibration

Thanks to automatic calibration, the printer automatically adjusts the position of the extruder while it is working on the model. This reduces the risk of errors and unintended curvatures.

## Heating

Allows printing with the use of technologically demanding materials. Additionally, it makes the process of removing the model from the platform after the print is complete easier.



# Z-Filament Series

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Zortrax Filaments were created to ensure the highest quality of prints in the Zortrax M200® environment.

The **Z-ABS®** line of filaments is the effect of work with a material which allows the full potential of the Zortrax M200® printer to be released. An ideal proportion of polycarbonate and ABS material combines the best qualities of each material.

Z-ABS® is an elastic and durable material alike, suitable for mechanical treatment. It is therefore optimal for creating objects of everyday use, architectural models, mechanical parts or prototypes of home appliances or electronics. Models printed using Z-ABS® can be used as prototypes of objects created further with injection molding technology.

**Z-ULTRAT®** is a premium plastic filament for 3D printing with Zortrax M200®. Material with high hardness level, high durability and low level of deformation. Excellent for printing architectural models, utility models and working parts in machine prototypes.

Perfectly imitates the properties of materials used in mass production. Available in full range of colors.



Coming soon:

## Z-PCABS®

resistant to high temperatures

## Z-NYLON™

durable, elastic, prone to staining

## Z-FLEX™

highly elastic, shape memory properties

## Z-GLASS™

transparent, high level of hardness

## Z-ALU™

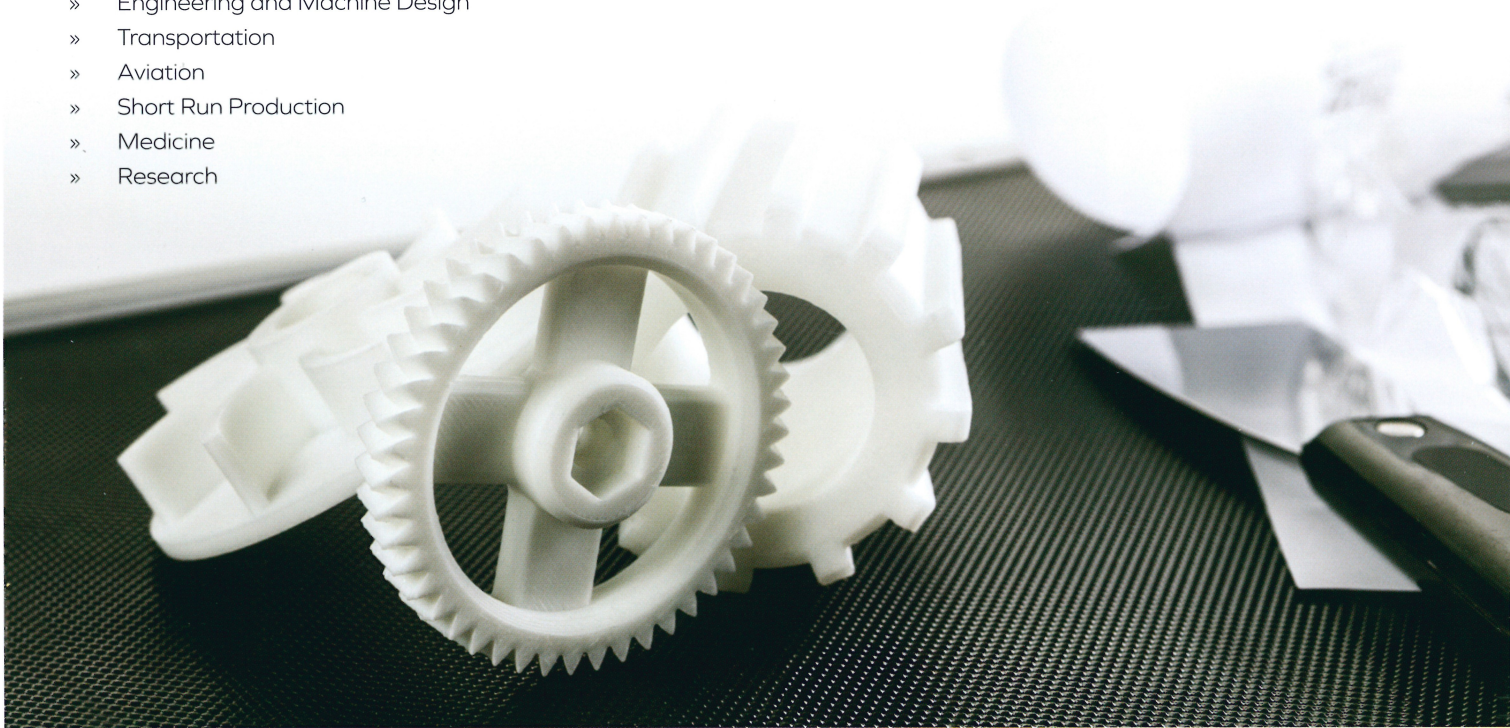
hard, addition of aluminum alloy



# Zortrax M200<sup>®</sup>: Possibilities

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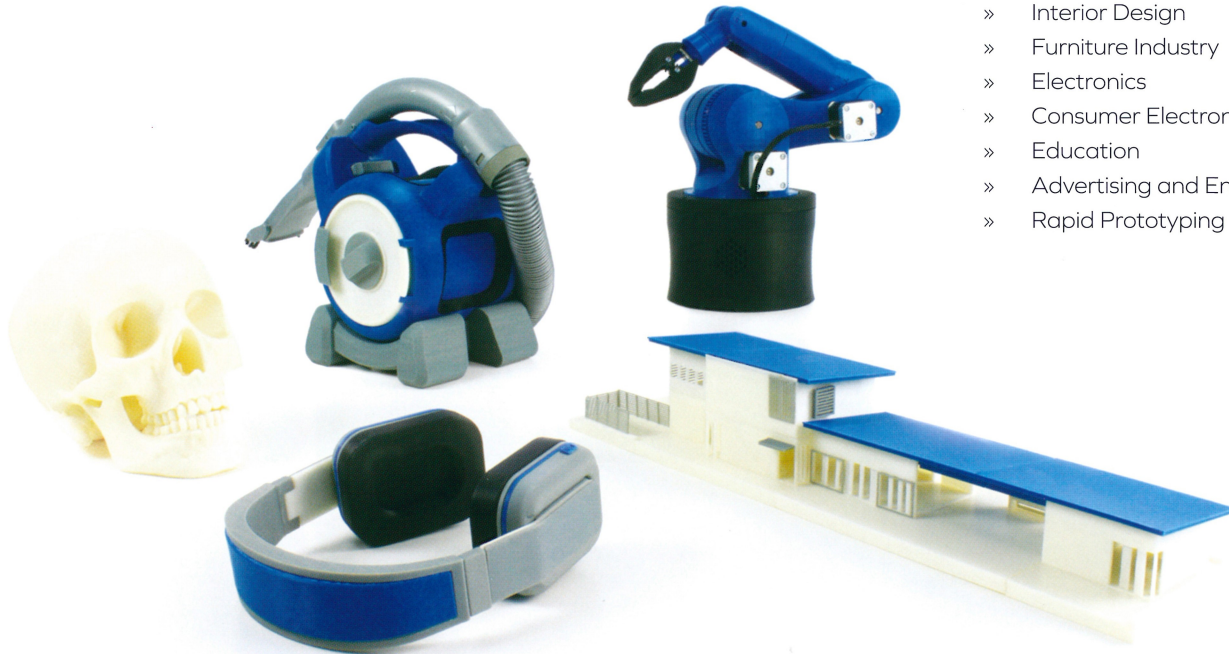
- » Production Engineering
- » Industrial Automation
- » Automotive Industry
- » Engineering and Machine Design
- » Transportation
- » Aviation
- » Short Run Production
- » Medicine
- » Research



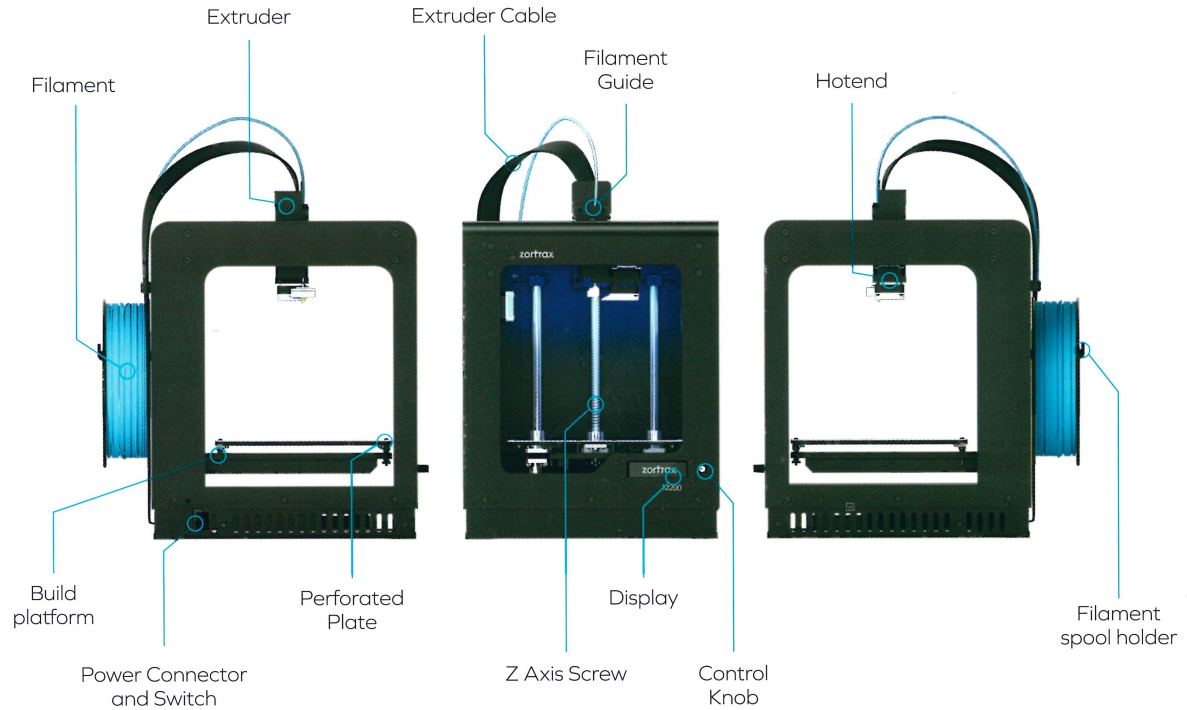
# Zortrax M200®: Possibilities

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- » Industrial Design
- » Architecture
- » Interior Design
- » Furniture Industry
- » Electronics
- » Consumer Electronics
- » Education
- » Advertising and Entertainment
- » Rapid Prototyping



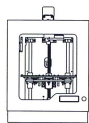
# Overview



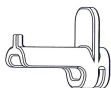


# In the Box

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Zortrax M200®  
3D Printer



Filament Spool  
Holder



Filament Guide



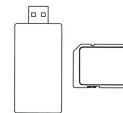
Filament Spool



Perforated  
Plate



Power Cable



SD Card &  
SD Card  
Reader



Z-Suite®\*  
&  
Quick Start Guide



Safety  
Gloves



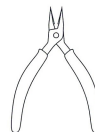
Cutting Knife  
&  
Scalpel



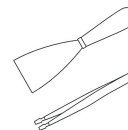
Allen Keys



Nozzle Key  
&  
Nozzle Needle



Pliers



Spatula  
&  
Tweezers



Service Grease



Safety Glasses

# Specifications

## PHYSICAL DIMENSIONS

Without Spool	345 x 360 x 430 mm [13.6 x 14 x 17 in]
With Spool	345 x 430 x 430 mm [13.6 x 17 x 17 in]
Shipping Box	460 x 470 x 570 mm [18 x 18.5 x 22.4 in]
Weight	13 kg [28.7 lbs]
Shipping weight	20 kg [44 lbs]

## TEMPERATURE

Ambient Operation Temperature	15°-35° C [60°-95° F]
Storage Temperature	0°-35° C [32°-95° F]

## ELECTRICAL

AC input	110/240V ~ 2 A 50/60 Hz
Power requirements	24 V DC @ 11 A
Power consumption	~ 190W
Connectivity	SD card [included], WiFi*

## SOFTWARE

Software bundle	Z-Suite®
File types	.stl, .obj, .dxf
Supports	Mac OS X / Windows XP, Windows Vista, Windows 7, Windows 8

## PRINTING

Print technology	LPD - Layer Plastic Deposition
Build volume	200 x 200 x 185 mm [7.87 x 7.87 x 7.28 in]
Layer resolution settings	Advanced: 25-50* microns [0.000984-0.0019685 in]  Standard: 90-400 microns [0.003543-0.015748 in]
Wall thickness	Minimal: 400 microns  Optimal: 800+ microns
Resolutution of single printable point	400+ microns
Filament Diameter	1.75 mm [0.069 in]
Filament Type	Z-Filament Series
Nozzle diameter	0.4 mm [0.015 in]
Minimum single positioning	1.5 microns
Positioning precision X/Y	1.5 microns
Z single step	1.25 microns
Extruder maximum temperature	380° C [716° F]
Heated platform maximum temperature	110° C [230° F]

\* available in future update