

# Raise3D N-series 3D Printer

**Raise the standard of 3D printing**



**RAISE3D**  
RAISE THE STANDARD

# About This Project

We set out to build the **Raise3D N-Series**  
to **raise** the standard of **3D printing**.

# 1. Basic Information



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# 1.1 Differentiation Points

High-resolution **0.01mm**

Huge build volume, up to **12 \* 12 \* 24 inches**

**Aluminum inner frame** for increased rigidity

7 inch capacitive **touchscreen** with easy-to-use GUI

**Freescale** imx6, Quad core 1Ghz ARM processor

**All-metal hot-end** up to **300** degrees Celsius: **10+** verified types of filament

**Remote** monitoring and print job management, via Ethernet/Wi-Fi

**Resume printing** after a **power interruption**

16 expansion ports allow **customization** with digital and analog I/O



# 1.1 Differentiation Points

Easy access to load filament on the **right side** of the machine (N2/N2 Plus)

Clear acrylic cover to extruder for **easy filament loading**

Transparent and removable **full enclosure**

Heated print-bed, pre-aligned at the factory (N2/N2 Plus), **leveling-free**

**Dual ball-screw Z-axis** (N2/N2 Plus)

**Dual extruder** (optional)

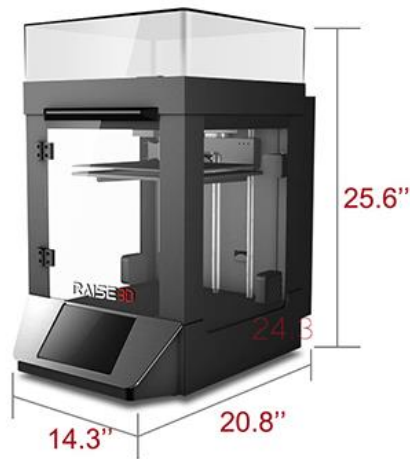
**Onboard Camera** (optional)

\* All N-Series printers on a network can be managed and shared using ideaMaker, allowing you to create a **remotely controlled and monitored 3D printer farm** (planned for 2016).

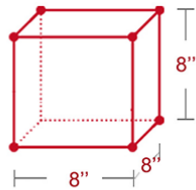
\* All 3-printers in the series are equally easy to use and maintain, once you know how to use one, you can use them all.



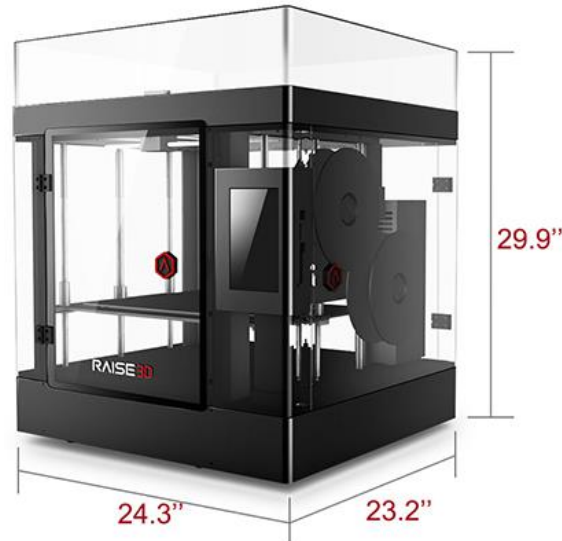
# 1.2 N-Series Printer



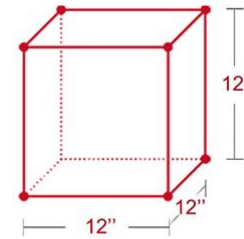
**Raise3D N1**



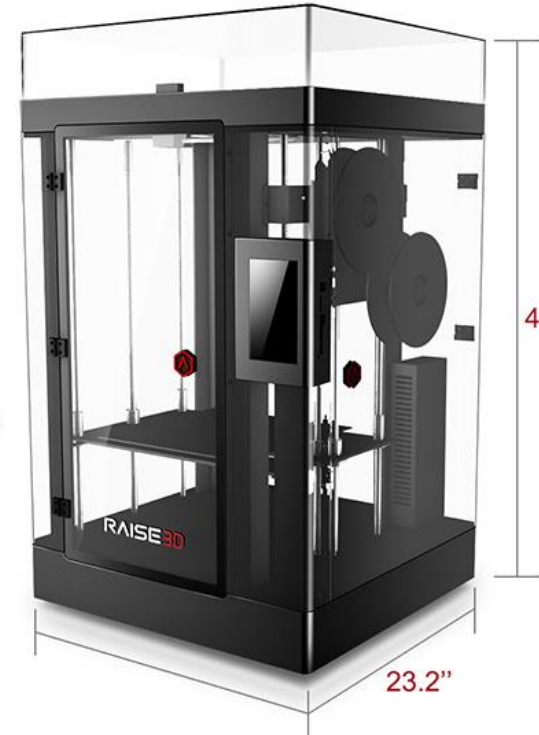
**512** Cubic Inch



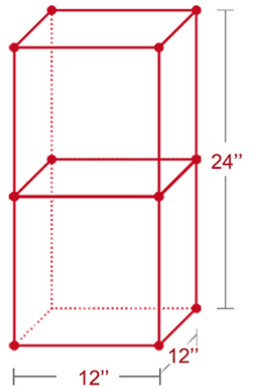
**Raise3D N2**



**1,728** Cubic Inch

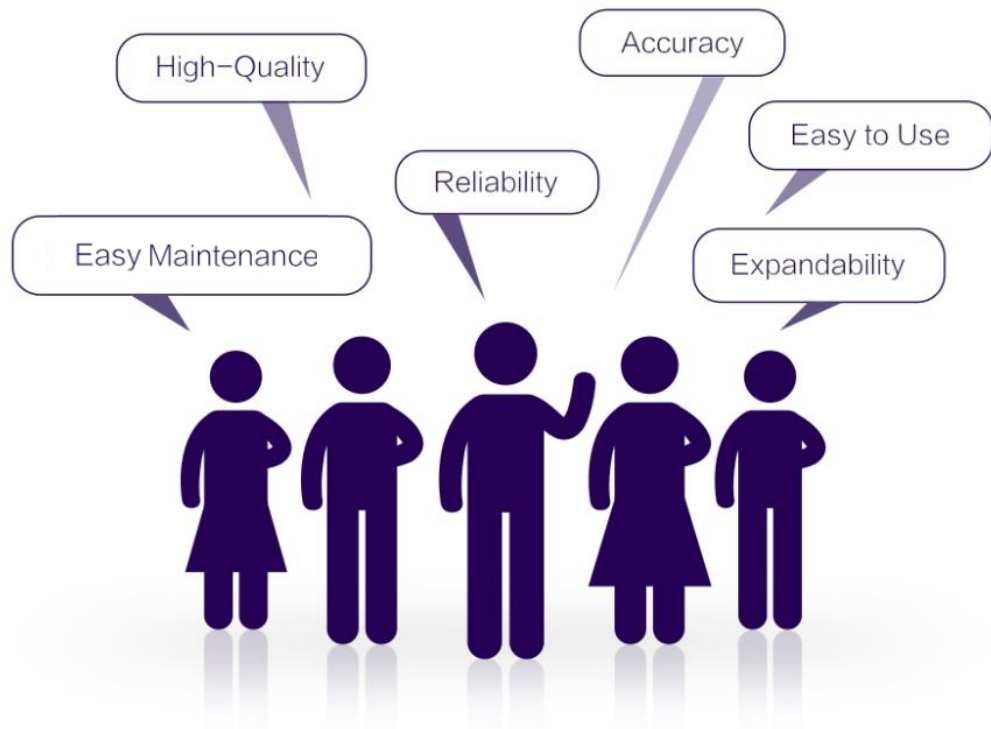


**Raise3D N2 Plus**



**3,456** Cubic Inch

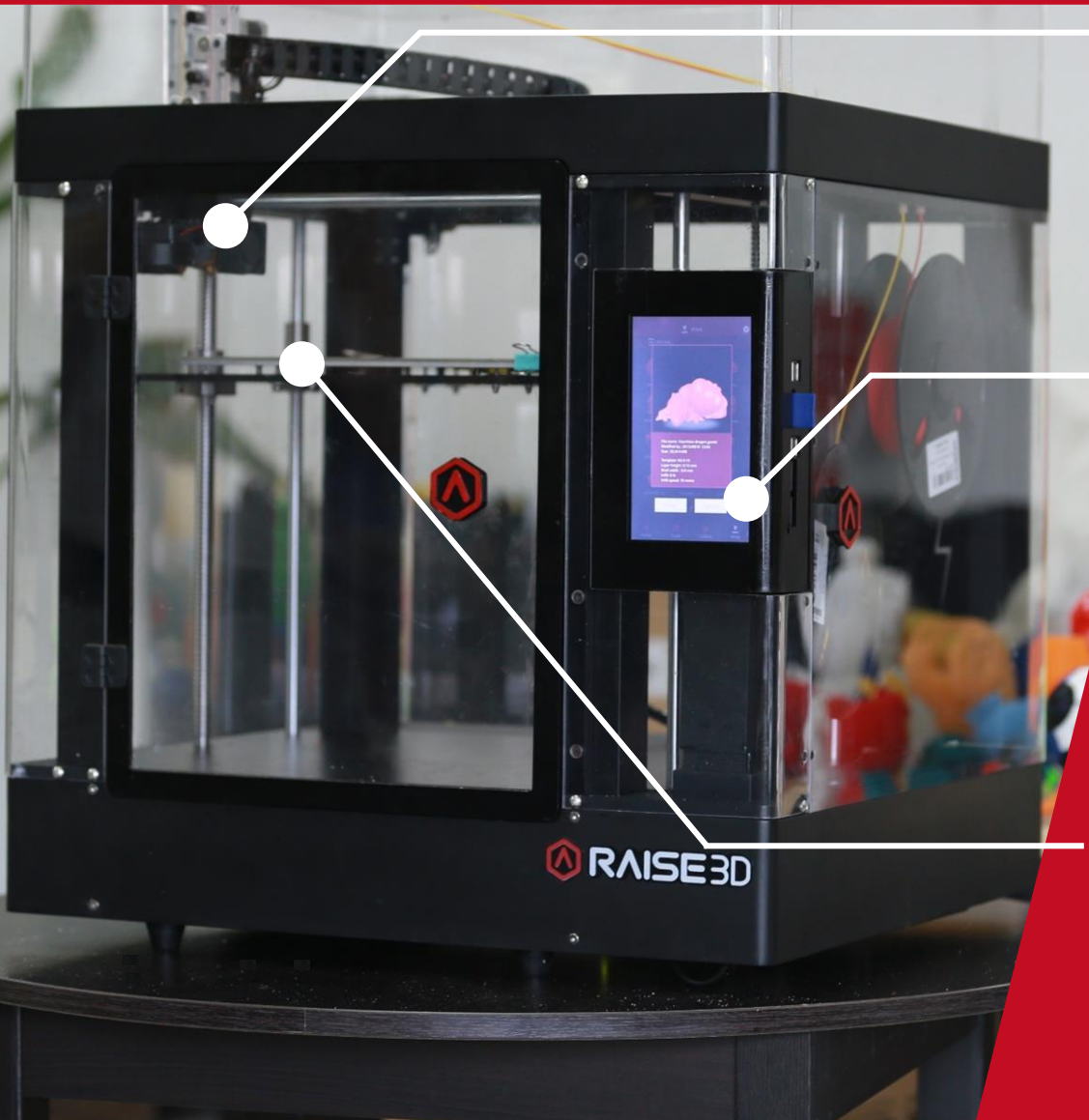
## 1.3 Design Principle



**The N-Series is designed to meet the needs of the most demanding users.**

- ◇ Deliver high quality surface finish.
- ◇ Highly accurate output suitable for product prototyping, assembly and testing.
- ◇ Designed and built for 24x7 operation and reliability.
- ◇ Thoughtfully designed for easy maintenance and management.
- ◇ Hardware and software that allow for add-on expansion and experimentation.

# 1.4 Features



- ◇ All Metal Hot-end reaches 300° Celsius
- ◇ Proven to work with 10+ filament types:  
*PLA, PLA+, ABS, PC, R-flex, PETG, TPU, Hips, Bronze-filled, Wood-filled.*

- ◇ 7 inch Touch Screen User Interface.
- ◇ On-board computer running Quad-Core 1Ghz Freescale ARM Processor.



- ◇ Build platform is pre-calibrated at the factory, Leveling-free (only N2/N2 Plus).
- ◇ Heated bed.
- ◇ Borosilicate glass plate with BuildTak™ applied.

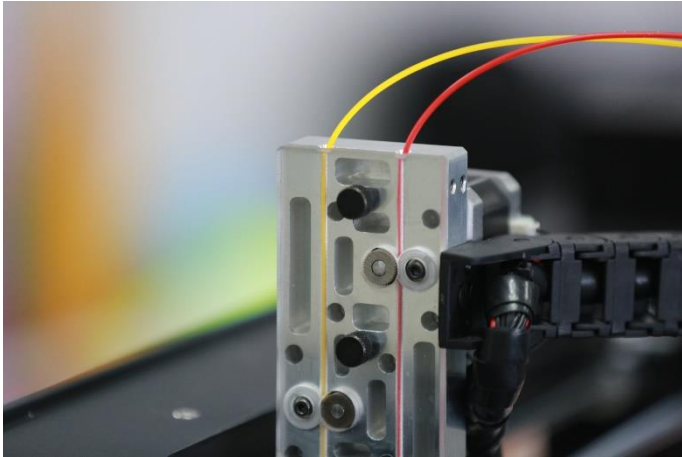


## 1.4 Features



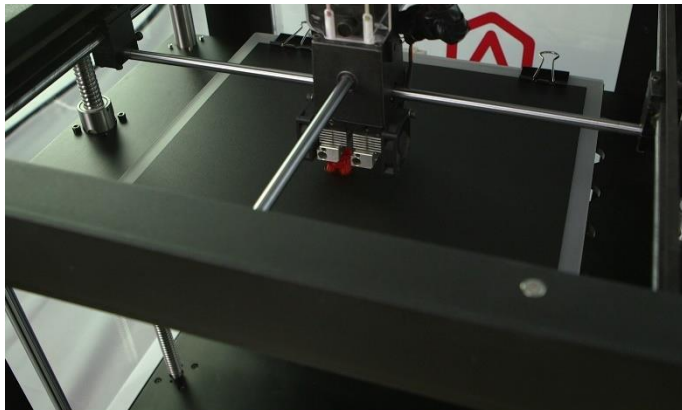
- ◇ Dual high-accuracy ball-screws and large linear rods and ball bearings for great accuracy and print quality.
- ◇ Fully enclosed design for better print quality and improved safety.
- ◇ Enclosure is transparent to provide excellent visibility.
- ◇ Easy access to filament from the right side, not the back.
- ◇ Onboard computer to accommodate future expansion and experimentation:  
*USB \* 4, SD slot \* 1, 8GB internal storage and GPIO ports \* 16.*

## 1.4 Features



### Compact Dual Extruder (optional)

- ◇ Clear acrylic cover to extruder for easy filament loading.
- ◇ Compact dual extruder maximizes build area.
- ◇ All metal feed mechanism for reliability and long life.



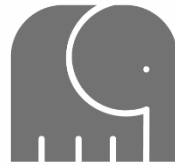
Aluminum



### Aluminum Inner Frame

- ◇ High-accuracy machined frame.
- ◇ Enhanced reliability for X, Y and Z stage.

# 1.4 Features



## Huge Build Volume

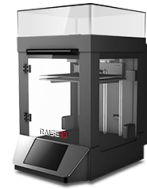
- ◇ N2 Plus offers build volume up to 12\*12\*24 inch.
- ◇ N2 offers build volume 12\*12\*12 inch.
- ◇ N1 offers 8\*8\*8 inch build volume in a compact size.



## Graphical User Interface

- ◇ Visual preview of model being printed.
- ◇ Graphical operator guidance and instructions.

# 1.5 Comparisons – N1 and others



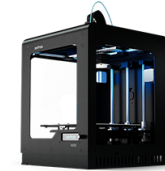
**Raise3D N1**



**Makerbot 5th Gen**



**Ultimaker 2**



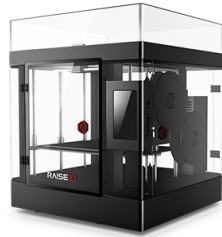
**Zortrax M200**



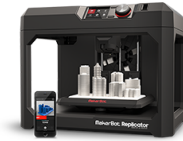
**Afinia H800**

<b>Resolution (Min)</b>	<b>10 micron</b>	100 micron	20 micron	90 micron	100 micron
<b>Build Volume (Cubic inch)</b>	<b>512</b>	456	627	443	640
<b>Build Size (inch)</b>	<b>8×8×8</b>	9.9×7.8×5.9	8.8×8.8×8.1	7.9×7.9×7.1	10×8×8
<b>Print Bed Leveling</b>	<b>manual</b>	manual	manual	manual	auto leveling
<b>Touch Screen</b>	<b>7 inch</b>	×	×	×	×
<b>Heated bed</b>	✓	×	✓	✓	✓
<b>Dual Extruder</b>	✓	×	×	×	×
<b>Power Interruption Resume</b>	✓	×	×	×	×
<b>Wifi Printing</b>	✓	✓	×	×	×
<b>Ethernet Printing</b>	✓	✓	×	×	×
<b>Full Enclosure</b>	✓	×	×	×	✓
<b>Embedded Computer Memory</b>	<b>8 G</b>	2 G	-	-	-
<b>Slicing Software</b>	<b>ideaMaker, Cura</b>	Makerware	Cura	Z-SUITE	UP Software
<b>Camera</b>	<b>Future Option</b>	Yes	No	No	No
<b>Price (USD)</b>	<b>1199-1399</b>	2899	2499	1999	1999

# 1.5 Comparisons – N2 and others



**Raise3D N2**



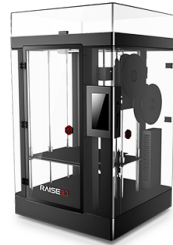
**Makerbot 5th Gen**



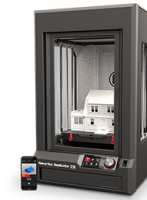
**Ultimaker 2 Extended**

Resolution (Min)	<b>10 micron</b>	100 micron	20 micron
Build Volume (Cubic inch)	<b>1728</b>	456	929
Build Size (inch)	<b>12×12×12</b>	9.9×7.8×5.9	8.8×8.8×12
Print Bed Leveling	<b>leveling free</b>	manual	manual
Touch Screen	<b>7 inch</b>	×	×
Heated bed	✓	×	✓
Dual Extruder	✓	×	×
Power Interruption Resume	✓	×	×
Wifi Printing	✓	✓	×
Ethernet Printing	✓	✓	×
Full Enclosure	✓	×	×
Embedded Computer Memory	<b>8 G</b>	2 G	-
Slicing Software	<b>ideaMaker, Cura</b>	Makerware	Cura
Camera	<b>Future Option</b>	Yes	No
Price (USD)	<b>1599-1899</b>	2899	3030

# 1.5 Comparisons – N2 Plus and others



**Raise3D N2 Plus**



**Makerbot 5th Gen Z18**

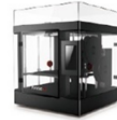
<b>Resolution (Min)</b>	<b>10 micron</b>	100 micron
<b>Build Volume (Cubic inch)</b>	<b>3456</b>	2549
<b>Build Size (inch)</b>	<b>12×12×24</b>	11.8×12×18
<b>Print Bed Leveling</b>	<b>leveling free</b>	manual
<b>Touch Screen</b>	<b>7 inch</b>	×
<b>Heated bed</b>	✓	×
<b>Dual Extruder</b>	✓	×
<b>Power Interruption Resume</b>	✓	×
<b>Wifi Printing</b>	✓	✓
<b>Ethernet Printing</b>	✓	✓
<b>Full Enclosure</b>	✓	✓
<b>Embedded Computer Memory</b>	<b>8 G</b>	2 G
<b>Slicing Software</b>	<b>ideaMaker, Cura</b>	Makerware
<b>Camera</b>	<b>Future Option</b>	Yes
<b>Price (USD)</b>	<b>1999-2499</b>	6499

# 1.6 N-Series Specs

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www.raise3d.com



N1



N2



N2 Plus

		N1	N2	N2 Plus
Printer	Print Technology		FDM	
	Build Volume (W×D×H)	8×8×8 inch / 205×205×205 mm	12×12×12 inch / 305×305×305 mm	12×12×24 inch / 305×305×610 mm
Printer	Layer Resolution		0.01-0.25 mm	
	Filament Diameter		1.75 mm	
	Filament Type		PLA/ PLA+/ ABS/ PC/ PETG/ R-flex/ TPU/ HIPS/ Bronze-filled/ Wood-filled	
	Printing Surface		Buildtak	
	Heated Build Platform		Yes	
	Enclosure		Yes	
	Nozzle Diameter		0.4 mm (0.016 in)	
	Nozzle Working Temperature		170-300 °C	
	Number of Nozzles		1 (standard) / 2 (optional)	
	Printing Speed		10-150 mm/s	
Moving Speed		150-300 mm/s		
Positioning Accuracy			XY-axis: 0.0125 mm, Z-axis: 0.00125 mm	
Software	Slicing Software		ideaMaker	
	Supported File Types		.stl, .obj	
	Supported OS		Windows XP and later versions, Mac	
Printer Controller	Machine Code Type		gcode	
	User Interface		7 inch capacitive touch-screen	
	Screen Resolution		1024*600	
	Motion Controller		ATmega2560	
	Logic Controller		Freescale imx6, Quad core 1Ghz ARM processor	
	Memory		1G	
	Onboard Flash		8G	
	OS		Embedded Linux	
	Ports		Sdcard*1, Usb2.0*4, Ethernet*1	
	Extendable Ports		PWM*2, i2c*1, spi*1, uart*1, gpio*4, 8bit adc*5, usb2.0*1, 5v-1A*2, 3.3v-200mA*1, Reset*1, Gnd*3	
Network		Ethernet, 802.11b/g/n Wifi		
Camera		Planned future option		
Resume Print after Power Interruption		Yes		
Construction	Frame		Aluminum	
	Enclosure		ABS, Acrylic and Polycarbonate	
Construction	Machine Size (W×D×H)	14.3×20.8×25.6 inch / 362×529×651 mm	24.3×23.2×29.9 inch / 616×590×760 mm	24.3×23.2×43.8 inch / 616×590×1112 mm
Electrical	Power Supply Input	Universal 110/230 VAC, 50/60 Hz		Universal 100-240 VAC, 50/60 Hz
	Power Supply Output	450 Watts, 24 VDC		600 Watts, 24 VDC

*"Specifications are subject to change as we incorporate improvements to our products."*

## 2. Print Tests



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## 2.1 Verified Materials

*PLA, PLA+, ABS, PC, PETG, TPU,  
NinjaFlex, PolyFlex, Hips, Bronze-filled, Wood-filled.*

And more on the way



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Transparent PLA



PLA+



Wood-filled



PC



Bronze-filled



TPU



PLA



ABS



HIPS



PETG

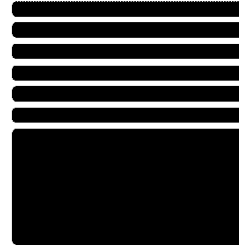


Filament Compatibility Test: all@0.15mm Layer Height  
king from Classic Set by SteedMaker, Thingiverse:34017

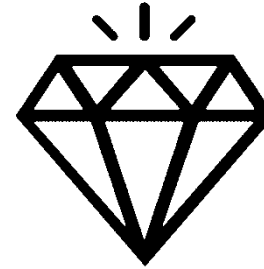
## 2.2 Accuracy



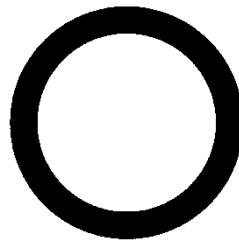
**Accuracy**



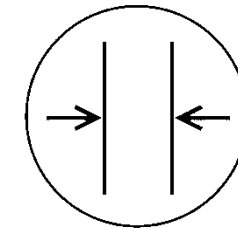
**Layer Resolution**



**Surface Quality**

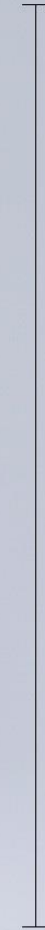


**Roundness**



**Tolerance**

We measure output accuracy using 4 criteria.



Height  
80mm

Single Detail: PLA@0.15mm Layer Height  
king from Classic Set by by SteedMaker, Thingiverse:34017



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Single Detail: PLA@0.15mm Layer Height

Left: jefferson by dsaunders, Thingiverse:221889

Middle: king from Classic Set by by SteedMaker, Thingiverse:34017

Right: HELLBOY MASK FILAFLEX by Recreus, Thingiverse:516088



40 microns



100 microns



Height  
25.4mm

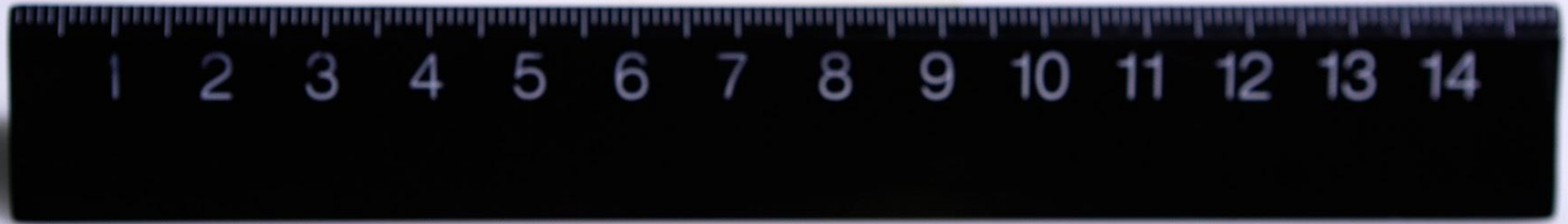


150 microns



250 microns

Layer Height Test: PLA@0.04, 0.1, 0.15, 0.25mm Layer Height  
3D Hubs Marvin – Key Chain by 3DHubs, Thingiverse:215703

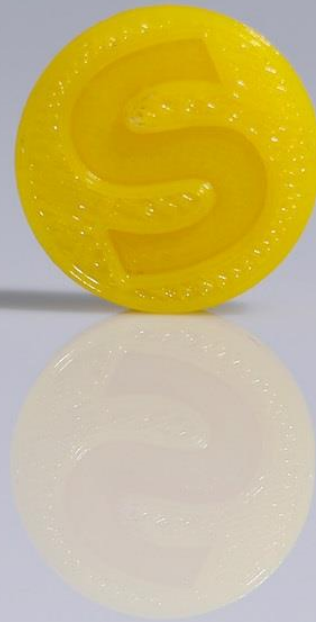
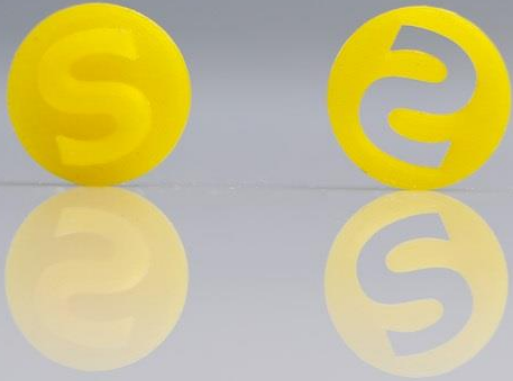


Surface Finishing Test: PLA@0.15mm Layer Height  
Surface Finish Calibration Test Shape by whpthomas, Thingiverse: 39050



Roundness Test: PLA@0.15mm Layer Height with a Nickle  
Nickle Calibration by jvanroekel, Thingiverse:84795

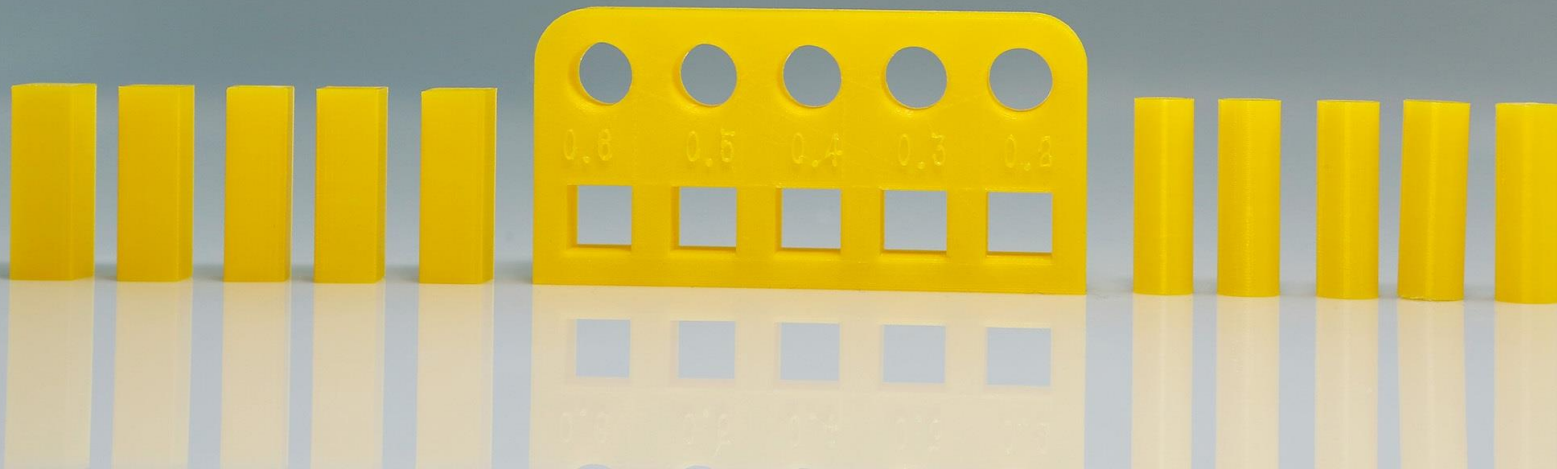




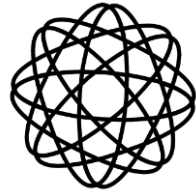
S Shape Fitness Test: PLA@0.15mm Layer Height  
S-plug from Part Fitting Calibration by MEH4d, Thingiverse: 342198



Tolerance Test: PLA@0.15mm Layer Height  
Clearance tolerance test by 286707995, Thingiverse: 1032087



## 2.3 Printing Abilities



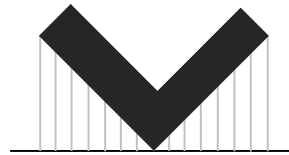
**Retraction**



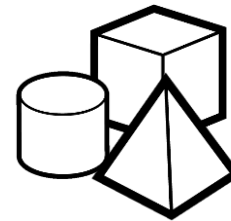
**Bridging**



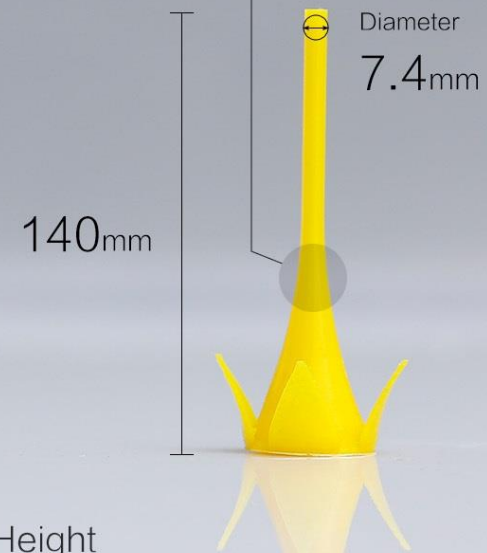
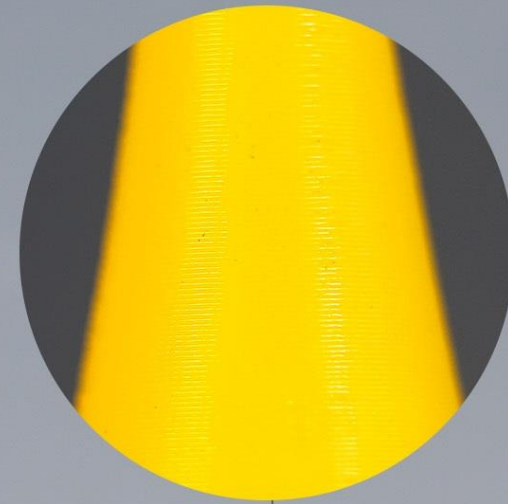
**Overhang**



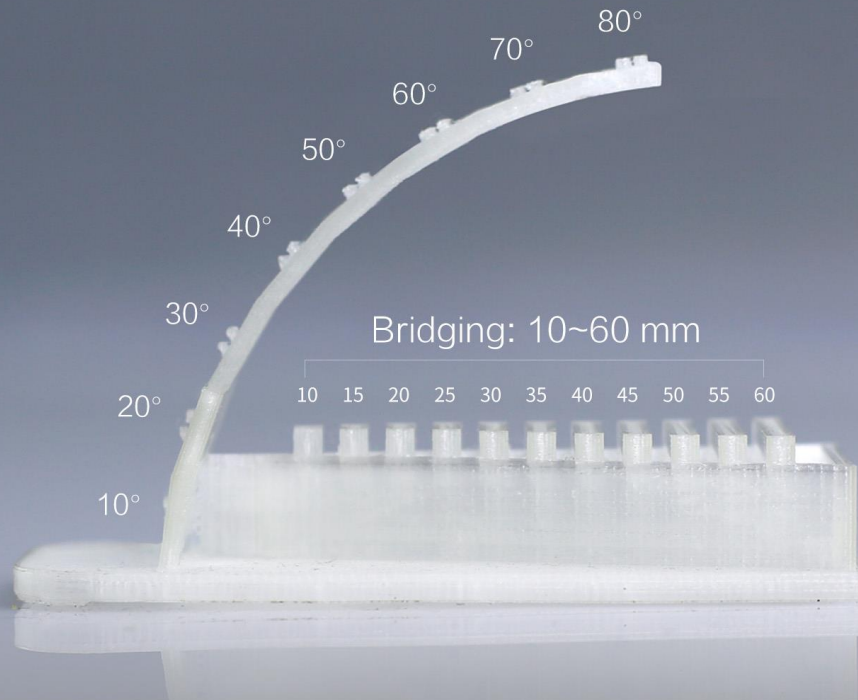
**Support**



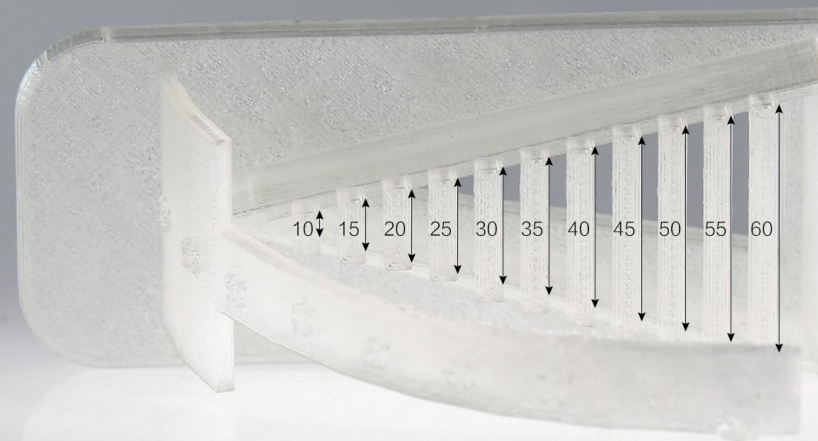
**Multi-object  
Printing**



Retraction Test: PLA@0.15mm Layer Height  
Left:Regular bracelet by nervoussystem, Thingiverse 7047  
Right:Make a rose for your girl.by hansliu, Thingiverse: 663065



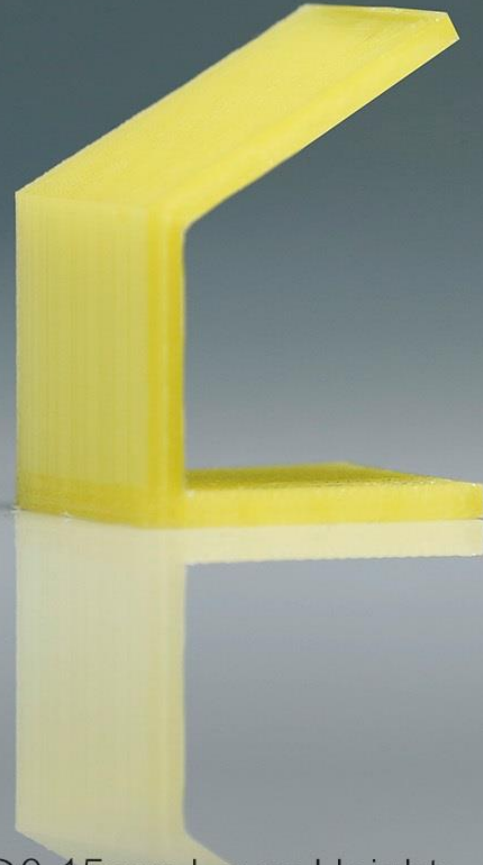
Overhang & Bridging Test: PLA@0.15mm Layer Height  
angle\_and\_bridging\_test by 286707995, Thingiverse: 1057569



Bridging: 10~60 mm



Multiple Object Print Test: PLA @0.15mm Layer Height with Raft unremoved  
Chess – Classic Set by by SteedMaker, Thingiverse:34017



Support Test: PLA@0.15mm Layer Height  
Support Quality Test by 286707995, Thingiverse:1032095

## 2.4 Dual-extrusion Test



Dual Color Printing



Dual Extruder  
Support Material Test

\* Dual extruder is optional





Height  
120mm



Height  
15mm

Dual Extruder Test: PLA @0.15mm Layer Height  
Left: Julia Vase #002 – Yin Yang by virtox, Thingiverse:28202  
Right: Pet Monster Valentine – Dualstrusion Ready by tbuser, Thingiverse:29088

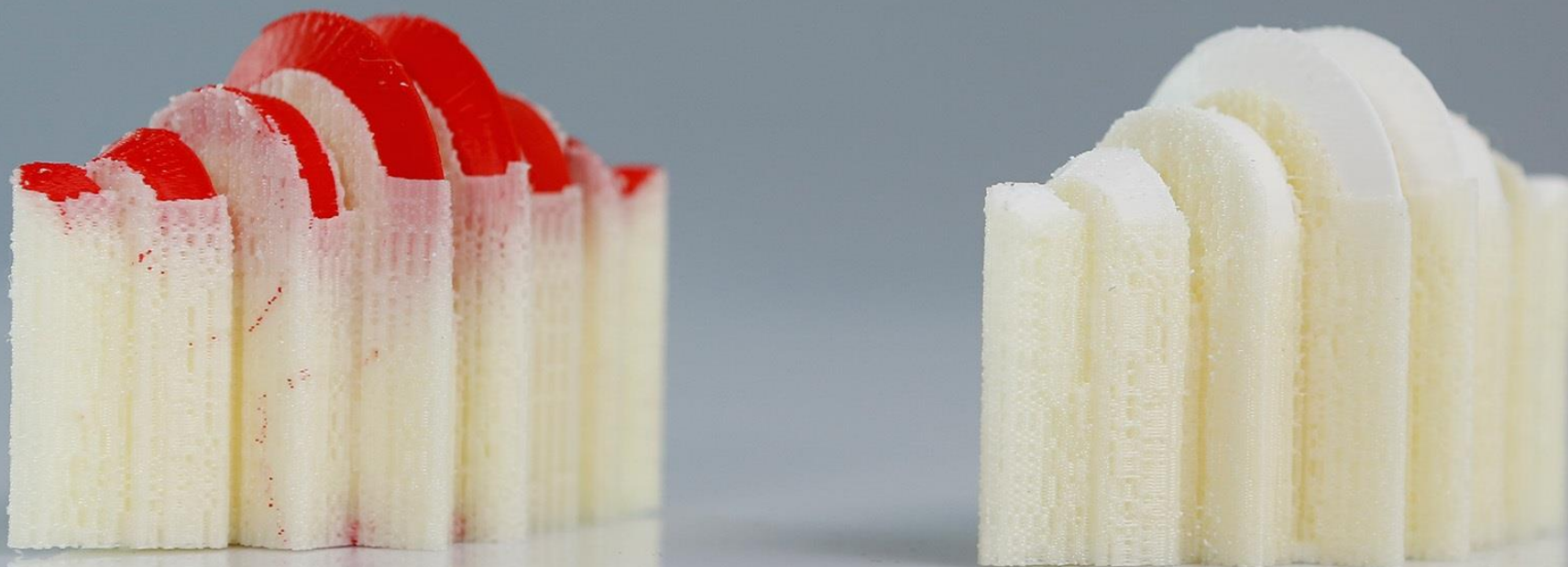


Dual Extruder Support Material Test: PLA&Support@0.15mm Layer Height  
original Bunny Peel from Bunny Peel with meshmixer Support by meshmixer, Thingiverse:131054





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Dual Extruder Support Material Test: PLA&Soluble Support@0.2mm Layer Height  
Helix with Ball by stevemedwin, Thingiverse:42081  
(Under Development)

## 3. Feature Details



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## 3.1 Visual Print Preview and File Management

### Previewing

- ◇ Organize and manage your print jobs through the touch-screen interface.
- ◇ Print jobs from our ideaMaker software incorporate preview data with the G-code, giving you a visual preview of your print.
- ◇ Community standard G-code, without preview data, is also supported.



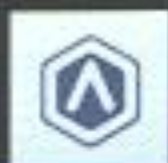
RAISE3D



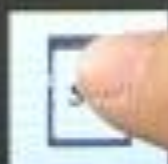
RAISE3D



Print



Local storage



SD Card



USB storage



Home



Tune



Utilities



Print

## 3.2 Visual Print Progress Preview

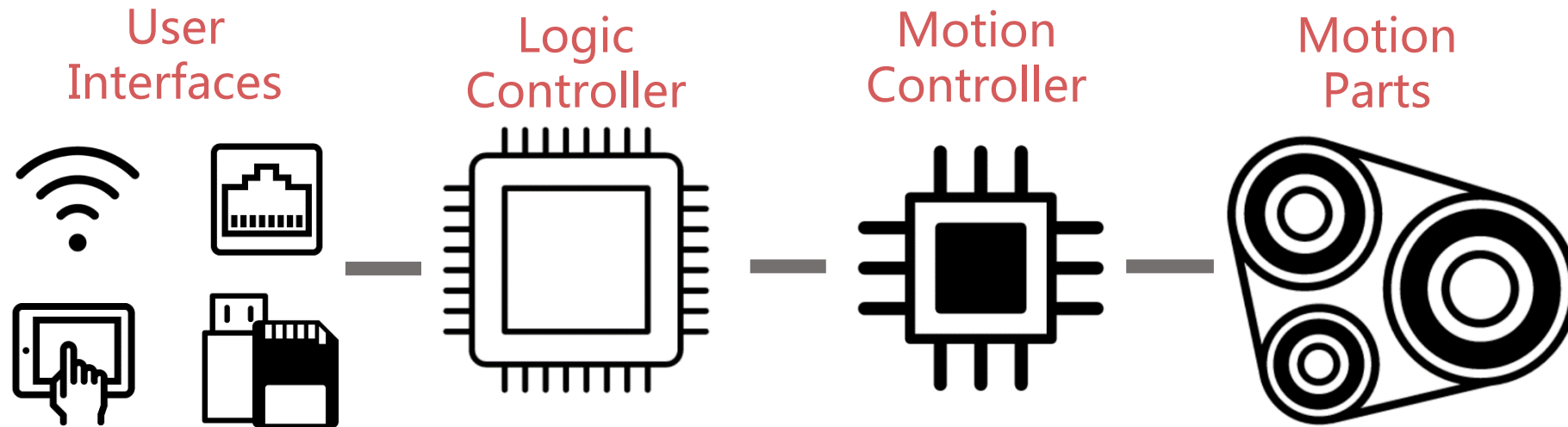
### Visual Progress Indication

- ◇ The completed section of the print is highlighted on the preview image to show the progress of your job.
- ◇ Job statistics, including printing time, are displayed along with the job preview.





## 3.3 Powerful Processor

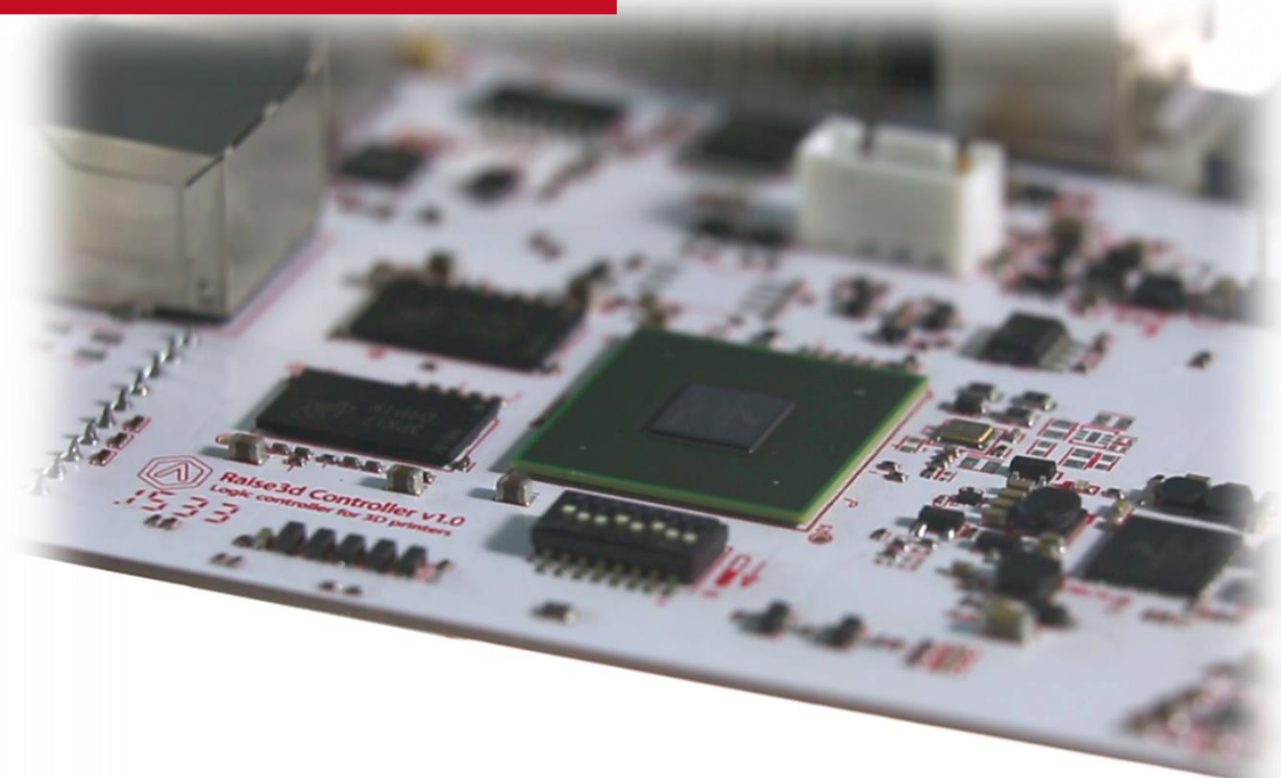


- ◇ Touch-screen interactions and other advanced storage and connectivity features are handled by the powerful Freescale ARM logic controller. A separate motion controller provides dedicated accurate control of the printer components.

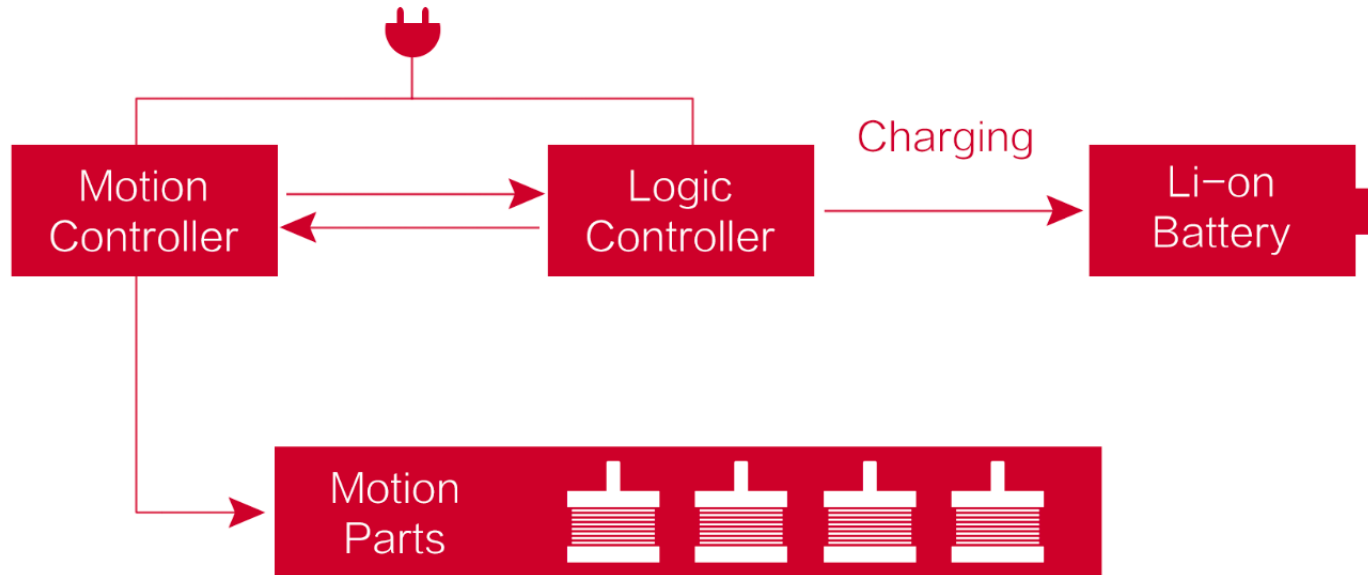
## 3.3 Powerful Processor



- ◇ CPU: 1Ghz Quad-Core imx6 ARM Processor
- ◇ Memory: 1GB
- ◇ Onboard Flash: 8GB
- ◇ Ports: SD card \* 1, USB2.0 \* 4, Ethernet \* 1
- ◇ Network: Ethernet, 802.11b/g/n Wi-Fi
- ◇ System: Embedded Linux based on Ycoto project
- ◇ Extendable Ports: PWM \* 2, I2C \* 1, SPI \* 1, 8Bit ADC \* 1, USB2.0 \* 1, 5v-1A \* 2, 3.3v-100mA \* 1, Reset \* 1, Gnd \* 3

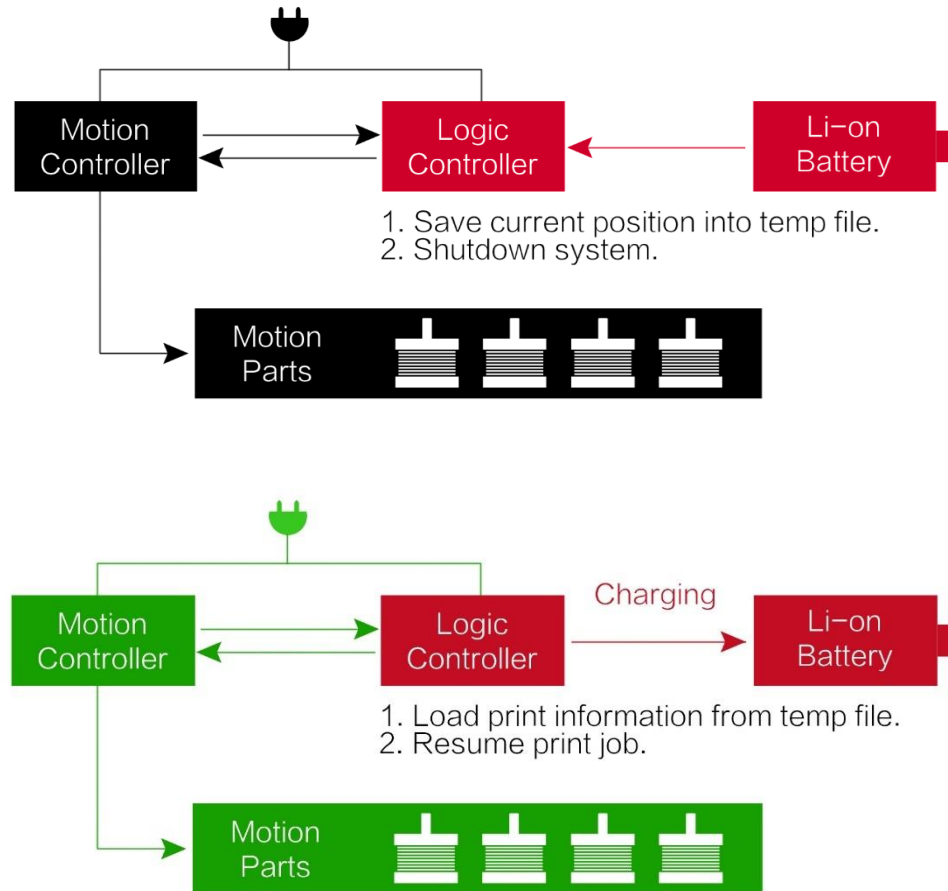


## 3.4 Recovery After Power Interruption



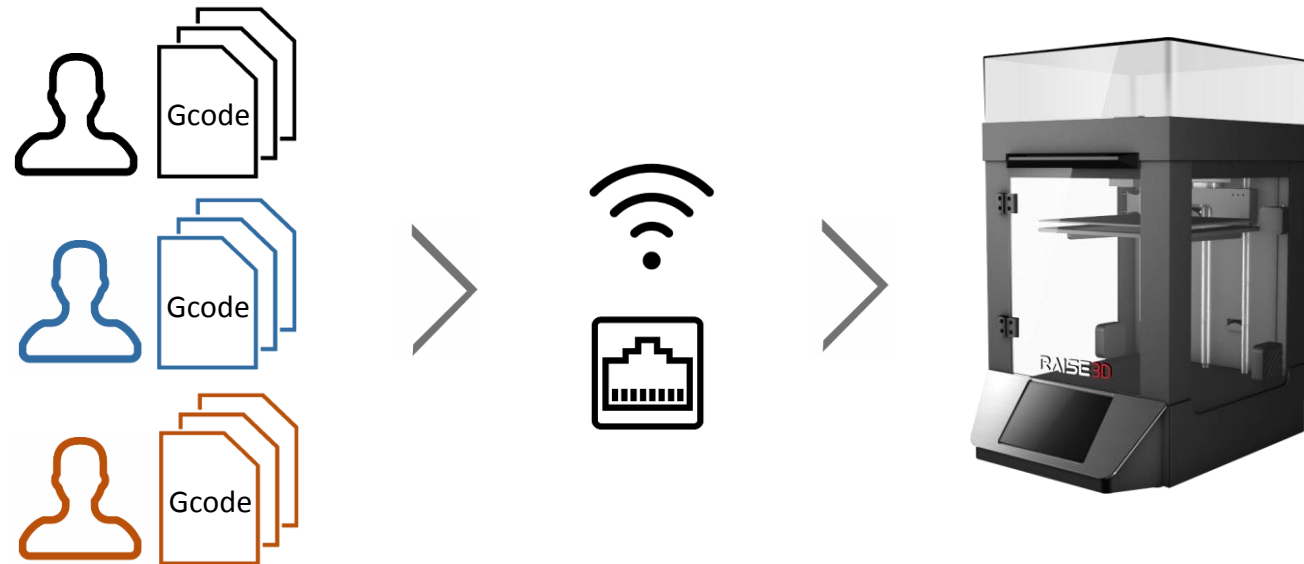
- ◇ Li-on batteries provide essential power to the printer in the event of a power loss.
- ◇ Battery backup allows the N-Series printers to recover after a power loss to resume the print job from the precise point where it left off.

## 3.4 Recovery after Power Interruption



- ◇ When power is lost, the logic controller operates from the battery to go through an orderly shutdown sequence. Details to recover the print job are stored during the sequence.
- ◇ When power is restored, the start up sequence will detect the recovery data and allow the print job to be resumed.

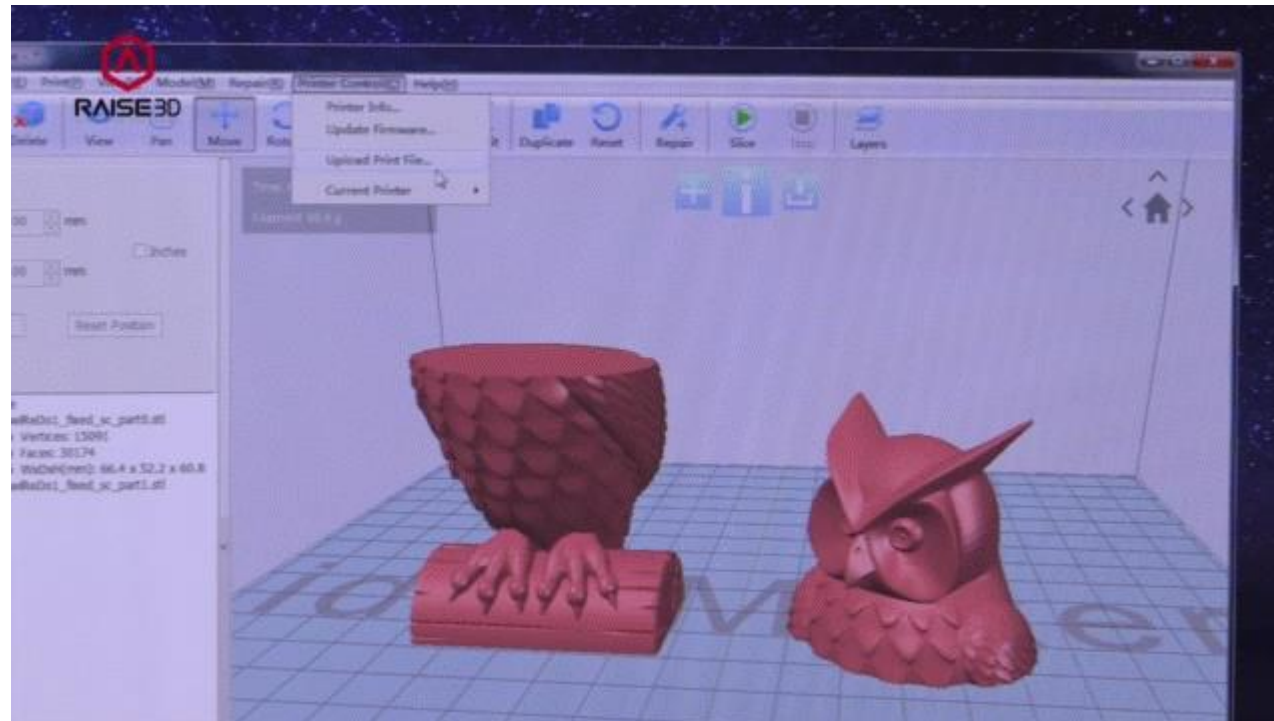
## 3.5 Wi-Fi/Ethernet File Uploading & Control



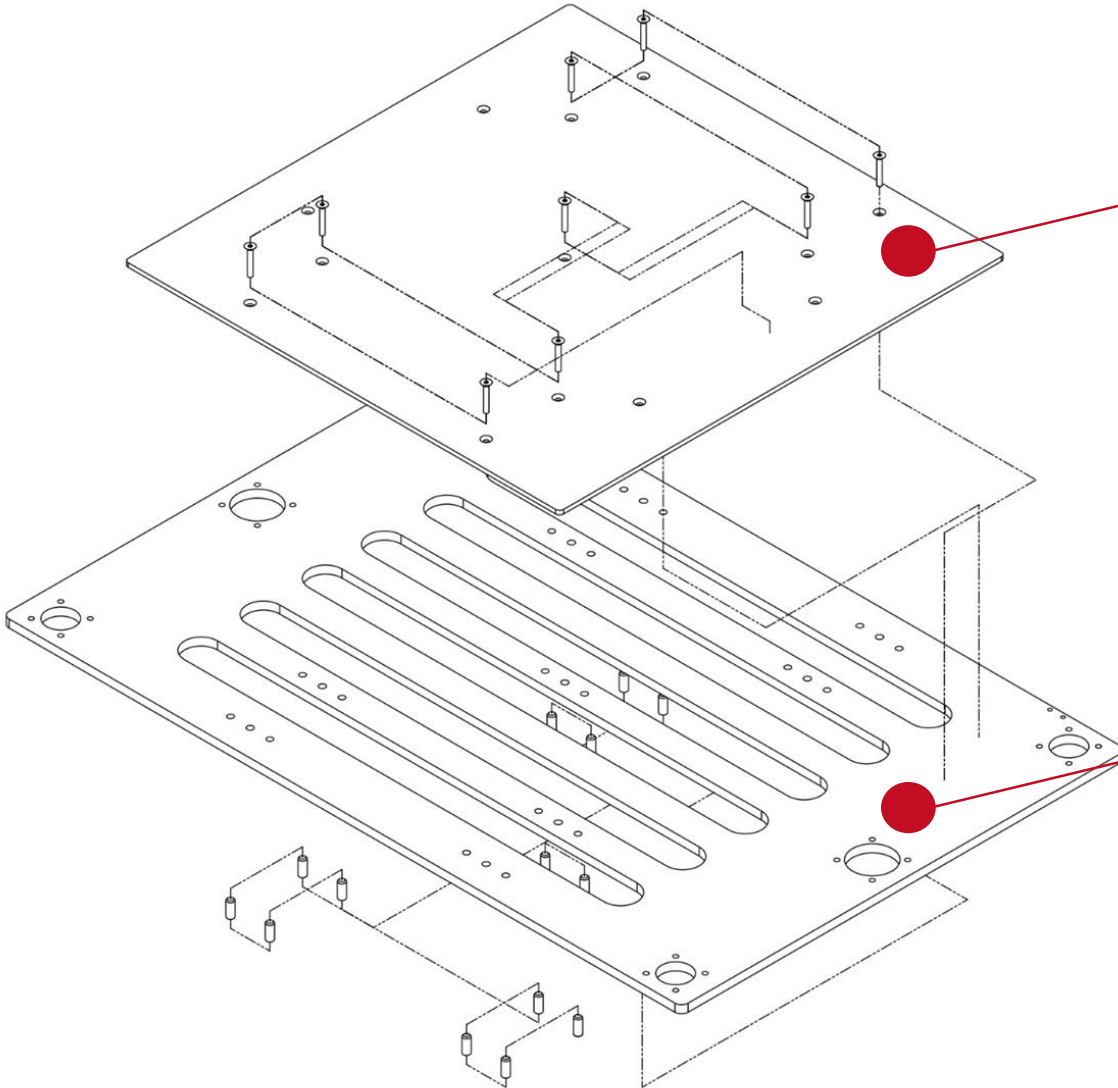
- ◇ Wi-Fi and Ethernet connectivity allow for print jobs to be uploaded through the network, eliminating the “sneaker-net” shuffling of SD cards to run the printer without a computer.
- ◇ The network connection also allows for remote management and monitoring of the printer.
- ◇ Printers can be managed and shared by team members within a network.

## 3.5 Wi-Fi/Ethernet File Uploading & Control

- ◇ Networked printers can be accessed directly from ideaMaker, making it easy to submit and manage print jobs on the machine.
- ◇ The printer discovery function in ideaMaker can automatically find and connect to any N-Series printers in your network.



## 3.6 Factory – Calibrated Platform (Only N2/N2+)



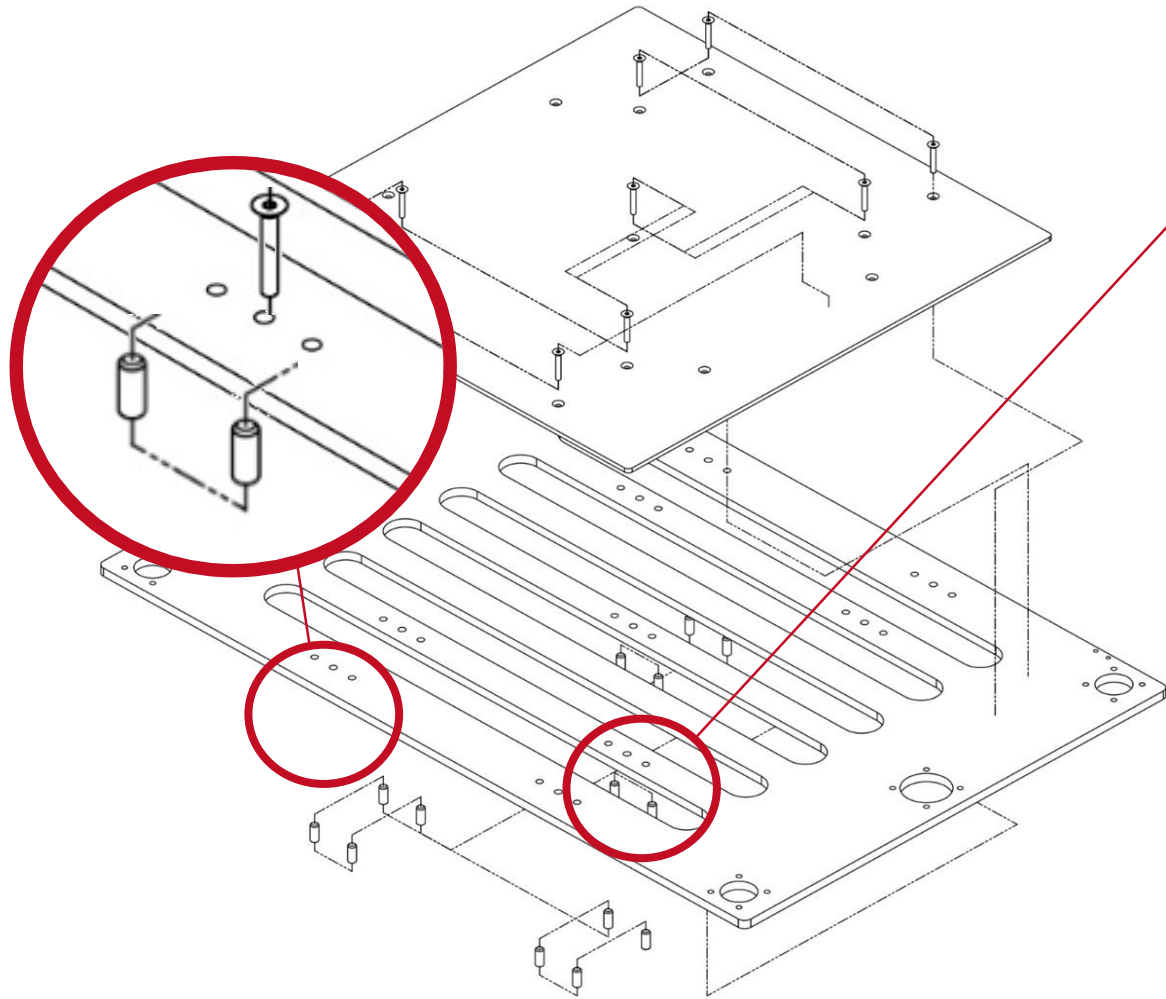
### Heated-bed

- ◇ Machined aluminum holds the heated-bed.

### Mounting Plate (Z-stage)

- ◇ Rugged aluminum plate allows for factory-calibrated mounting of the heated-bed to the Z-axis guides and ball-screws.

## 3.6 Factory – Calibrated Platform (Only N2/N2+)



### Lock Group \* 9

- ◇ The heated-bed is calibrated at the factory. Once it is leveled (trammed), the heated-bed is locked into place by 9 sets of mounting hardware.
- ◇ This ensures that the bed will always be level, eliminating the bed-leveling hassle and worry that is common with most other printers.

\* The N1 has manual print bed calibration.





## 3.7 Printing Surface



Easy To Install



Optimal 3D  
Printing Surface



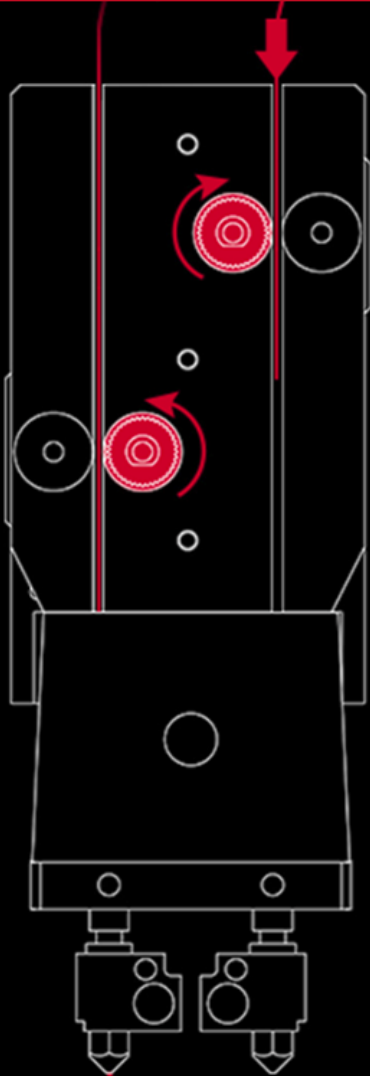
Heat Resistant



Durable &  
Long Lasting

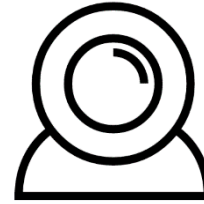
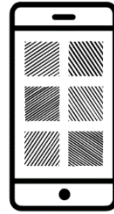
- ◇ The N-Series Printers come with a removable borosilicate glass build plate with BuildTak™ applied at the factory. The BuildTak™ can be replaced or removed based on your needs for the printing surface.

## 3.8 Dual Extruder (optional)



- ◇ Independent dual extruders. With two separated hot-ends that can reach different temperatures.
- ◇ Same or different types of filament could be used on Raise3D dual extruder.
- ◇ Very compact size. The 1 inch spacing between two nozzles maximizes usable build-area for dual-extrusion prints.

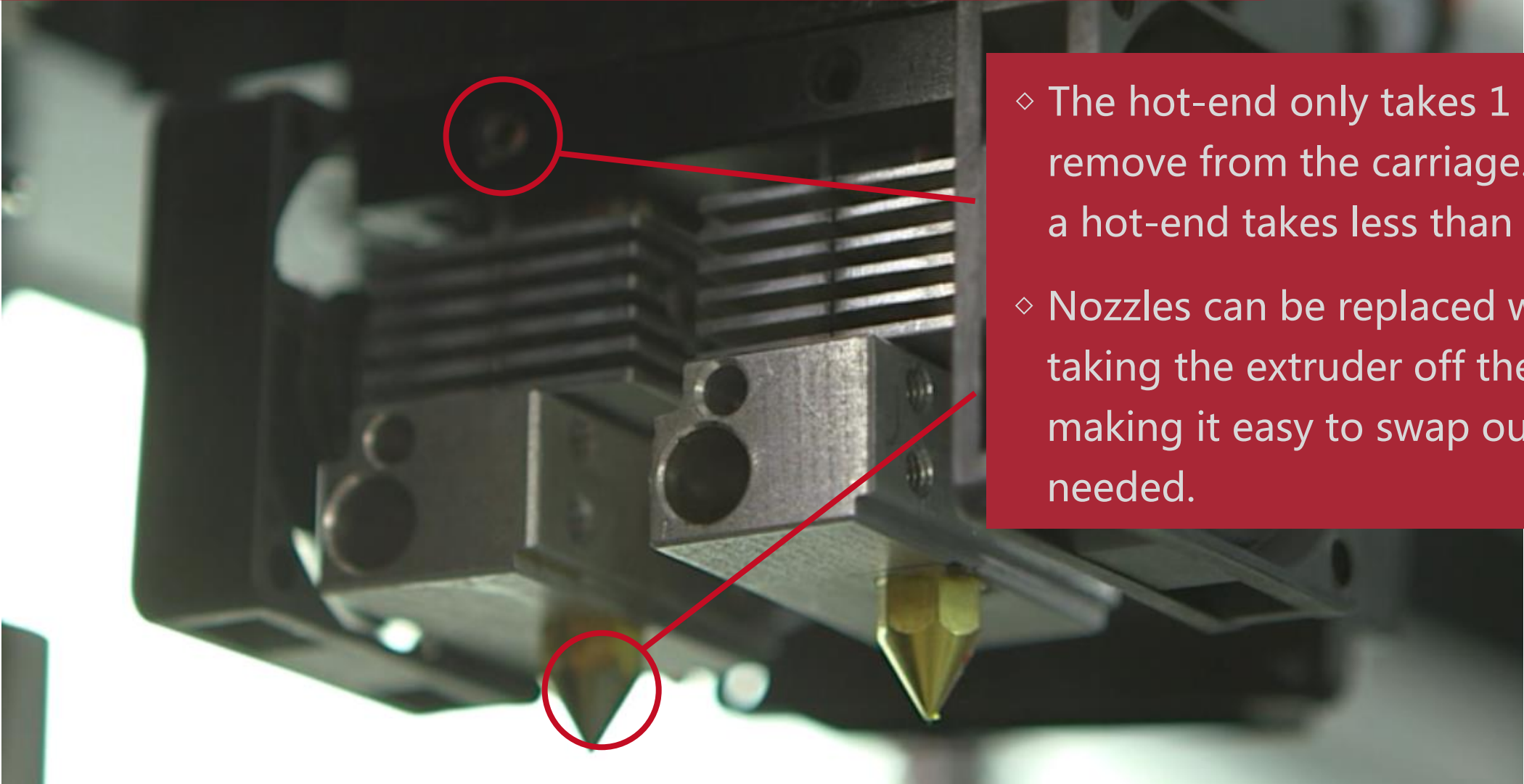
## 3.9 Remote Monitoring



OctoPrint

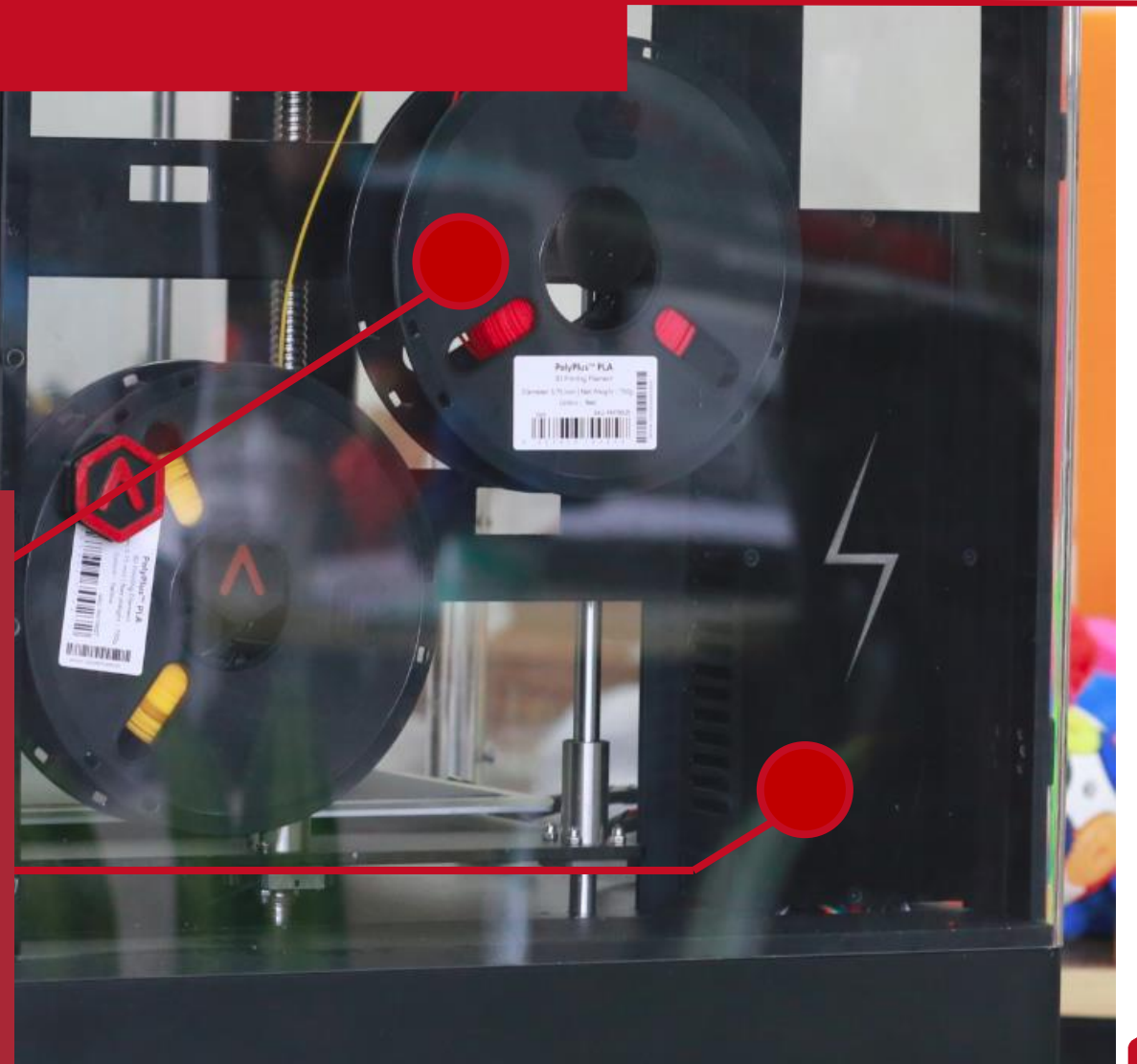
- ◇ As planned as a future option, the N-Series printers offer Wi-Fi and Ethernet connectivity which enables remote control and job mounting using the ideaMaker software.
- ◇ As one of our stretch goals, we will add a built-in camera for monitoring the printer directly in ideaMaker.
- ◇ The N-Series Printers printers are also compatible with OctoPrint, which can be used with many types of web cameras.

## 3.10 Easy Maintenance

- 
- ◇ The hot-end only takes 1 screw to remove from the carriage. Replacing a hot-end takes less than 5 minutes.
  - ◇ Nozzles can be replaced without taking the extruder off the machine, making it easy to swap out nozzles as needed.

## 3.10 Easy Maintenance

- ◇ Filament can be accessed directly from the right side of the machine on N2/N2+, not the back.
- ◇ The main electronics subassembly is also on the right side of the machine. By removing the cover, you can easily access the electronics.



## 3.11 Hackable Design



Marlin

### Firmware

- ◇ The Raise3D N-Series motion controller is powered by the ATmega 2560. This makes it compatible with the most popular open source 3D printer firmware, Marlin.
- ◇ We welcome advanced and experienced users familiar with Marlin to customize and develop their own enhancements.

## 3.11 Hackable Design



### APIs & Toolchains

- ◇ We will publish our APIs and toolchains after the Kickstarter campaign's conclusion.
- ◇ Change how the N-series printer works by adding your own ideas to the hardware and software.
- ◇ We look forward to seeing the future innovations in 3D printing, created by makers like you!

## 4. Included Slicer - ideaMaker



**RAISE3D**  
RAISE THE STANDARD



# Slicer



**ideaMaker**



Ready-to-Go Print Settings



Fast, 64bit, Multithreaded Slicer



Split Models to Smaller Pieces



Automatic Mesh Repairs

# Slicer



- ◇ The N-Series printers accept community-standard 3D printing G-code, giving you the freedom to use your own software. For the best results, we provide our own high-performance slicer to give you the optimal experience with our printers.
- ◇ Our ideaMaker slicer has a powerful 64-bit multi-threading slicing engine that powers through the slicing tasks with ease. It is built to handle large-scale objects so that even your most challenging prints can be processed, while other slicers may struggle for a long time or even crash with complicated jobs.

# Slicer



- ◇ The ideaMaker software is loaded with features, including the ability to automatically repair broken meshes, and to split large models into smaller chunks, and remote control the N-Series printers.
- ◇ The standard settings in ideaMaker yields excellent results. Yet, for experienced users, the ability to control detail of the printing process is essential. ideaMaker is highly adjustable, allowing you to use advanced settings to control nearly every parameter of the slicing process.

# Slicer



- ◇ My mini factory has the world's largest curated 3D object collection.
- ◇ Planned addition to ideaMaker.

## 5. Why do we need backers?



**RAISE3D**  
RAISE THE STANDARD

# Why do we need backers?

## Production



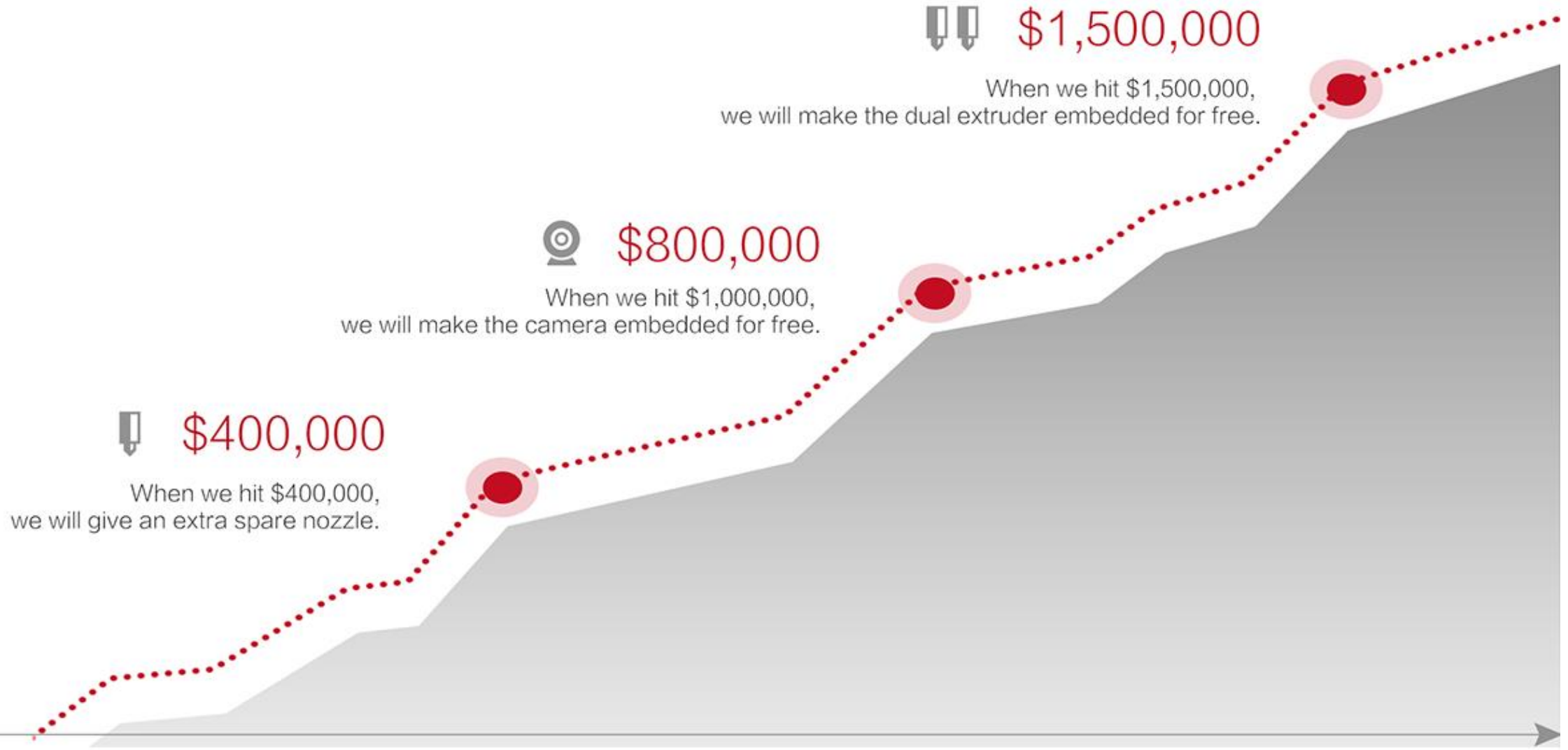
- ◇ We have production experience from building our first generation 3d printers, and have great access to high-quality Chinese manufacturing systems. We need a large enough volume of orders to effectively source parts and produce the machines.
- ◇ With your support, we can kick off the newest generation of customizable 3D printing, bringing a new experience to creators and innovators like you.

## 6. Stretch Goal



**RAISE3D**  
RAISE THE STANDARD

# Stretch Goal





## 7. Our Team



**RAISE3D**  
RAISE THE STANDARD

# Our Team

## Edward Feng CEO

Edward graduated from the MIT-Fudan MBA program and studied at Babson College for entrepreneurship. He is a successful entrepreneur, with over 3 years experience in 3D printing startups. Previously, Edward lead a multimedia interaction solution company. He worked with consolidating augmented reality, multi-touch, edge blending, gesture tracking, hologram technologies, and more to provide interactive solutions to customers. It is because of that interactive experience that he fell in love with 3D printing and its many applications. Since 2010, he had been devoted to 3D printing and helping connect people to the benefits of the technology. Prior achievements include work at Foxconn, the biggest Electronics Manufacturing Service company in the world, and MPI, the biggest LED testing and sorting machine company in the world.

## Derek CTO

Derek has 10 years experience with both software and hardware in addition to complex project management and workflow. Derek is the designer of our first generation 3D printer – ideaPrinter. He has talked with at least 500 users and collected vital feedback before the invention of the newest generation 3D printer – Raise3D. Previously, he worked as a project manager of Artoo, a human scale intelligent robot with a visual system, voice recognition system and motor system. Before that, he worked at Google as a software engineer in charge of the new search engine optimization.



# Our Team

## **Wangping Long** Chief Mechanical Engineer

Wangping has 15 years experience with mechanical design, specifically with non-standard automation. He is the former chief engineer and designer of the world's largest automatic cutting machine company in the textile industry. The machines he invented could cut large pieces of cloth up to 3.3 meters long. Starting from market investigation all the way to final production, he led the project to create the largest textile cutting machine in the world. There are no other cutting machines capable of cutting such large textiles. He successfully secured many patents on his innovative product and design.

## **Avalon** Chief Software Engineer

Avalon is the man behind the ideaMaker. He has over 10 years experience with computational graphic programming, with a focus on 3D modeling, mesh morphing and augmented reality. He invented software offering solutions for video and desktop operation output to multiple projectors in order to form seamless screens over 500 inches. He is also an expert on augmented reality demonstration platforms. These platforms allow the designer to import mesh data from 3D Max or Maya, and then demonstrate the 3D content while recognizing certain tags. A intelligent classifier is built in to recognize tags with a black border and natural image. The tracking rate can go up to 60fps.



# Our Team

## **John** Chief Material Scientist

John has a PhD in Chemical Engineering from the University of Southern California. He has 2 years experiences with photopolymer formula R&D. He has 10 years experience with hands-on experiments and 6 years experience with mathematical simulations. He is an expert on flow behavior of melted FDM filaments inside of the extrusion system. He developed a mathematical model to simulate the flow behavior of melted FDM filaments inside of the extrusion system to solve and prevent the problem of leaking material. He is also a professional at understanding resins for resin printers, and has developed a photopolymer formula for both SLA/DLP machines at various colors and various properties (ABS-like, wax-like and rubber-like materials).

## **Jingfeng Liu** Chief Electronics Designer

Jingfeng is a PhD Electrical and Computer engineer who received his degree from Carnegie Mellon University. He is the founder of LinkSprite, a company based in the state of Colorado. One of his inventions, Pcdduino, has tens of thousands of fans around the world, and has been featured in mainstream media since its launch. Over the years, he has secured many patents in both electrical and computer engineering. Previously, he worked as a Staff Design Engineer in Marvell Semiconductor, and as a Senior Staff Engineer Read/Write in Maxtor Corporation.



# Our Team

**Peiyue Zhang**  
Chief Production Engineer

Peiyue has more than 25 years experience in moulding, machining, mechanics design, plastic injection and related production areas. He is in charge of the engineering and production improvement of Raise3D.

**Echo Tang**  
Supply Chain Manager

Echo received her MBA from Fudan-MIT. She has more than 15 years of supply management experience. Before joining Raise3D, she worked as a supply chain manager for Apple in China.

**Lingling Lu**  
Manufacturing Manager

Lingling has 10 years experience in manufacturing, and used to work as a manufacturing specialist at Foxconn for many years. She also led the production of our first generation printer (ideaPrinter).

**Michael Huang**  
International Trade  
Manager

Michael received his MBA from Fudan-MIT. He has nearly 10 years of international trade experience. Before joining Raise3D, he worked as the international trade manager of Xery, another 3D printer company.

## 8. Rewards

	Super early birds	Early birds	Kickstarter
 N1	\$1199 *50	\$1299 *100	\$1399 *200
 N2	\$1599 *50	\$1749 *100	\$1849 *200
 N2 Plus	\$1999 *50	\$2199 *100	\$2399 *200

# Special Thanks

