

THE FASTEST,  
MOST AFFORDABLE  
COLOR 3D PRINTING





# A WORLD OF POSSIBILITIES

Z Corporation, producers of the world's fastest, easiest to use and most affordable 3D color printers, makes color 3D printing accessible to everyone. Z Corporation printers produce handheld color models quickly, easily and inexpensively from computer-aided design (CAD) and other digital data. From educational settings to the most demanding commercial environments, Z Corporation's family of 3D printers meets the needs of many specialized applications, including:

- **Design Prototypes:**  
3D print concept models, functional prototypes and presentation models for evaluating and refining designs.
- **Metal Castings:**  
Directly print molds, mold inserts and patterns for metal casting.
- **Architecture:**  
Create models of architectural designs and prototypes for the design of critical elements.
- **Education:**  
Engage students by bringing digital concepts into the real world, turning their ideas into real-life 3D color models that they can actually hold in their hands.
- **Geospatial:**  
Easily convert GIS data into 3D landscape and cityscape models.
- **Healthcare:**  
Rapidly produce 3D models to reduce operating time, enhance patient and physician communications, and improve patient outcomes.
- **Entertainment and the Arts:**  
Create avatars and consumer figurines from 3D data generated by electronic games, animations and youth-oriented software.

“With the Z Corp. system, we can have a discussion in the morning, make a suggestion, break for lunch and see the results in the afternoon.  
**No other tool can do this.”**

Jane Smith  
Director, Concept Car Division  
General Motors Corporation



# HOW Z CORPORATION TECHNOLOGY WORKS

Z Corporation technology works by creating a 3D physical model directly from digital data, layer by layer, turning concepts and ideas into real, physical 3D models that you can hold, examine and evaluate.

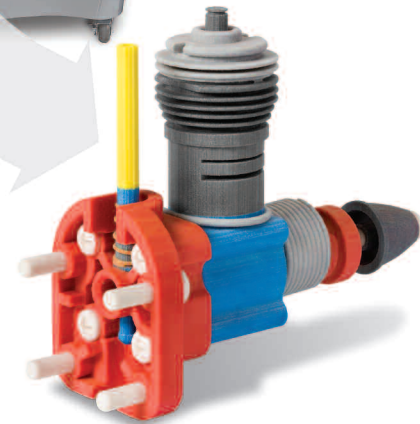


**1**  
A 3D CAD file is imported into the system software. The software slices the file into thin cross-sectional slices, which are fed to the 3D printer.

**2**  
The printer creates the model one layer at a time by spreading a layer of powder and inkjet printing a binder in the cross-section of the part.



**3**  
The process is repeated until every layer is printed and the part is complete and ready to be removed.



## ZPRINTER ADVANTAGES

ZPrinters set the standard for speed, color, affordability and ease of use. Within just a few hours you, and even your colleagues with limited expertise, will be able to operate a Z Corporation 3D printer in any standard office environment.

### THE WORLD'S FASTEST 3D PRINTERS

Z Corporation 3D printers are the world's fastest 3D printers — five to ten times faster than other solutions. That means you can output models in hours, not days. And unlike other 3D printing solutions, you can build multiple models at the same time, dramatically increasing throughput. Z Corporation high-speed solutions provide a competitive advantage for a range of applications, from demanding commercial environments supporting entire engineering departments, to education environments supporting classrooms of 20 to 30 students.

### COLOR PRODUCES DRAMATIC RESULTS

Nothing communicates better than color 3D models and product prototypes — and only Z Corporation makes 3D color printing accessible and available to everyone. Color dramatically communicates engineering product designs, vividly portrays architectural designs, and brings animated characters to life. You can add highlights to models with annotations like part numbers, design comments, and logos and better evaluate product designs. And with Z Corporation's high-definition 3D printing capabilities, you can produce models having complex geometries and small, detailed features.

### AFFORDABLE FOR ALL ENVIRONMENTS

From the initial price of the printer to ongoing materials and operational costs, Z Corporation delivers the industry's lowest cost per printed model. Z Corporation solutions use reliable and affordable inkjet technology, resulting in a materials usage cost that is a fraction of the cost of other rapid prototyping technologies. And Z Corporation 3D printers recycle all unused materials, so you pay only for the actual materials used to produce a part.

## A SOLUTION TO MEET YOUR NEEDS

From the classroom to the office, from monochrome to full-color high-definition 3D printing, Z Corporation offers a variety of solutions that meet the needs of a broad spectrum of application environments. All are affordable, all are easy to use and all are the industry's fastest.

### ZPrinter 310 Plus

#### Industry Standard Monochrome 3D Printing System

An ideal, entry-level rapid prototyping system, the ZPrinter 310 Plus is versatile, allowing users to make parts quickly for early concept evaluation and testing, painted parts for a finished look, or patterns for casting applications. It is well suited to both office and educational environments, and can support entire engineering departments or classrooms with ease.



### ZPrinter 450

#### The World's Most Automated and Affordable Color 3D Printer

The ZPrinter 450 performs most operations automatically, so you don't have to, and it simplifies the rest. Clean, quiet, safe, and convenient, the ZPrinter 450 outputs models five times faster than competitive systems, at one-fifth the cost. It is the ideal introduction to color 3D printing for a wide variety of applications, from product design, production prototypes, and architectural concepts, to education, healthcare and the arts.



### Spectrum Z510

#### High-Definition Color 3D Printing System

The Spectrum Z510's unique 24-bit color 3D printing capability creates models with crisply defined features, enhanced accuracy, and precise color, so you can print and evaluate physical models of design concepts in their nearly finished state. Color models communicate more information more clearly than any other type of rapid prototype, providing a critical strategic advantage in product development.



# A ZPRINTER FOR EVERY NEED

FEATURE	PRINTER		
	ZPrinter 310 Plus	ZPrinter 450	Spectrum Z510
APPLICATION	Most affordable, great parts	Most affordable color, easy to use, office friendly	Ultimate control, premium color, largest build size, many material choices
MULTICOLOR		■	■
AUTOMATED		■	
BUILD SPEED	2-4 layers per minute	2-4 layers per minute	2-4 layers per minute
BUILD SIZE	8 x 10 x 8 inches (203 x 254 x 203 mm)	8 x 10 x 8 inches (203 x 254 x 203 mm)	10 x 14 x 8 inches (254 x 356 x 203 mm)
MATERIAL OPTIONS	High-performance composite, direct casting, elastomeric, investment casting	High-performance composite	High-performance composite elastomeric, direct casting
LAYER THICKNESS	0.0035 - 0.008 inches (.089 - .203 mm)	0.0035 - 0.004 inches (.089 - .102 mm)	0.0035 - 0.008 inches (.089 - .203 mm)
RESOLUTION	300 x 450 dpi	300 x 450 dpi	600 x 540 dpi
NUMBER OF PRINT HEADS	1	2	4
NUMBER OF JETS	304	604	1216
FILE FORMATS FOR PRINTING	STL, VRML, PLY, 3DS	STL, VRML, PLY, 3DS	STL, VRML, PLY, 3DS
EQUIPMENT DIMENSIONS	29 x 34 x 43 inches (74 x 86 x 109 cm)	48 x 31 x 55 inches (122 x 79 x 140 cm)	42 x 31 x 50 inches (107 x 79 x 127 cm)
EQUIPMENT WEIGHT	255 lbs (115 kg)	425 lbs (193 kg)	450 lbs (204 kg)
POWER REQUIREMENTS	115V, 4.3A or 230V, 2.4A	110V, 14.4A or 115V, 14.0A or 230V, 6.2A	100V, 7.8A or 115V, 6.8A or 230V, 3.4A
NETWORK CONNECTIVITY	TCP/IP 100/10 base T	TCP/IP 100/10 base T	TCP/IP 100/10 base T
WORKSTATION COMPATIBILITY	Windows 2000 Professional and Windows XP Professional	Windows 2000 Professional and Windows XP Professional	Windows 2000 Professional and Windows XP Professional
REGULATORY COMPLIANCE	CE, CSA	CE, CSA	CE, CSA
SPECIAL FACILITY REQUIREMENTS	None	None	None

## APPLICATIONS AND INDUSTRIES

### MATERIAL OPTIONS

Z Corporation solutions provide a variety of 3D printing materials to meet many application and business needs. And Z Corporation parts can be sanded, drilled, tapped, painted and electroplated, further expanding the options available for finished part characteristics.

- **High performance composite material** can be used to make strong, high-definition parts and is the material of choice for printing color parts.
- **Investment casting material** can be used to quickly fabricate parts that can be dipped in wax to produce investment casting patterns.
- **Direct casting material** can be used to create sand casting molds for non-ferrous metals.
- **Elastomeric material** has been optimized for infiltration with an elastomer to create parts with rubber-like properties.



#### AUTOMOTIVE

Size: 9.8 x 11 x 4.3 inches  
(25 x 28 x 11 cm)  
Printing Time: 8 hours



#### CONCEPT MODELING

Size: 8.3 x 13 x 7.9 inches  
(21 x 33 x 20 cm)  
Printing Time: 12 hours



#### PRESENTATION MODELS

Size: 9.8 x 11.4 x 2.8 inches  
(25 x 29 x 7 cm)  
Printing Time: 4.5 hours



#### FOOTWEAR

Size: 3.9 x 11.8 x 2 inches  
(10 x 30 x 5 cm)  
Printing Time: 3 hours



#### METAL CASTING

Size: 7.9 x 13 x 5.1 inches  
(20 x 33 x 13 cm)  
Printing Time: 7 hours



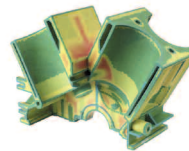
#### ARCHITECTURE

Size: 13 x 9.8 x 3.9 inches  
(33 x 25 x 10 cm)  
Printing Time: 8.5 hours



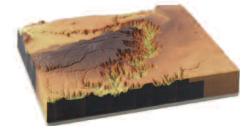
#### EDUCATION

Size: 5.1 x 9.8 x 5.1 inches  
(13 x 25 x 13 cm)  
Printing Time: 7 hours



#### FINITE ELEMENT ANALYSIS

Size: 5.5 x 7.9 x 3.9 inches  
(14 x 20 x 10 cm)  
Printing Time: 4.5 hours



#### GIS

Size: 9.5 x 12.2 x 2.4 inches  
(25 x 31 x 6 cm)  
Printing Time: 5.5 hours



#### CONSUMER PRODUCTS

Size: 3.1 x 7.1 x 2 inches  
(8 x 18 x 5 cm)  
Printing Time: 2 hours



#### FUNCTIONAL TESTING

Size: 7.9 x 7.9 x 1.6 inches  
(20 x 20 x 4 cm)  
Printing Time: 1.5 hours



#### MEDICAL

Size: 9.8 x 7.9 x 3.9 inches  
(25 x 20 x 10 cm)  
Printing Time: 5.5 hours



Z CORPORATION™

#### WORLDWIDE HEADQUARTERS

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