

Desktop PCB Prototyping Machine



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Multilayered rigid and flexible circuits
Dispensing glues and solder pastes
Printed Electronics
Pick-and-Place components



Description

SV2 from BotFactory brings the future of electronic circuit fabrication to your desktop.

SV2 circuit printers allows you to prototype in minutes instead of weeks, all at the click of a button, from a bare substrate to a fully assembled and functional circuit board in a matter of minutes.

Each PCB Printer includes an inkjet printhead that can dispense very fine droplets of conductive ink and insulating ink, allowing you to create multilayered rigid and flexible circuits on FR-4, Kapton or any substrate of your choice,

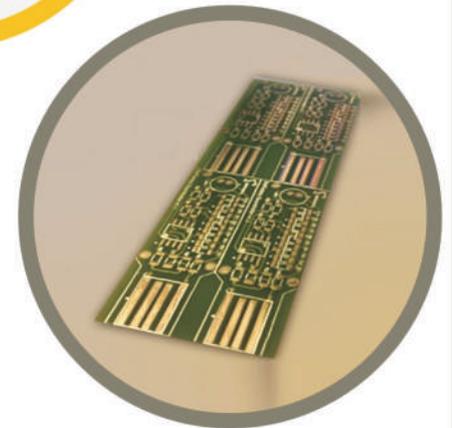
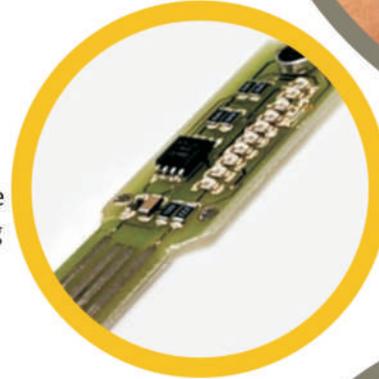
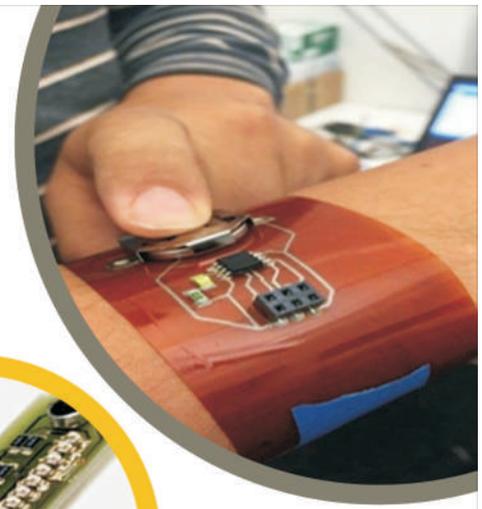
In addition, each printer has two heads for dispensing glues and solder pastes, and another to pick-and-place components, allowing you to assemble PCBs right at your desktop.

All In one Machine Capable of

- **Printing upto 4 layers of PCB Boards**
- **Glue and Solder Paste Dispensing**
- **Pick and placement of component**
- **Reflow Soldering**

Every year, millions of Electrical Engineers, Academics, Students and Hobbyists spend billions of dollars creation printed Circuit Boards yet suffer long waiting times for their design to be fabricated. We took it upon ourselves to bring PCB prototyping tools closer to the designer, creating a product that integrates all the steps of PCB fabrication into a compact, intuitive package, Building upon the maturation of conductive nano particle inks and image recognition technology.

We stand behind our product and actively improve the software of the BotFactory SV2 to better utilize the hardware. The Botfactory SV2 makes updates automatically available from our servers whenever it is connected to the internet.



Tender Specifications



MODELS	SV2 – Starter	SV – 2 Enhanced	SV – 2 Professional
Print Capability			
Print Technology	Thermal Inkjet Printing		
Number of Inkjet Nozzles	300		
Ink Types (curing method)	Conductive (heat), Insulating (UV)		
Min. Trace Width	8 mils [200 microns]		
Min. Clearance	16 mil [400 microns]	12 mil [300 microns]	8 mil [200 microns]
Min. Pin Pitch	24 mil [600 microns]	20 mil [500 microns]	16 mil [400 microns]
Min. Via Dimension	Diameter : 25 mil [600 microns] Drill Size : 15 mil [400 microns]		
Max. Printable Area	4.6" X 5.5" [117 X 140mm] [X/Y]		
Conductive ink sheet Resistance	40 mOhms/square		
Number of Layers	1-2	1-2	1-4
Supported Formats	GERBER RS-274X, jpg, png, tiff, bmp		
Dispensing Capability			
Paste Technology	Syringe Extrusion		
Paste Types	Conductive Epoxy and Solder Paste		
Extrude Bot Size	8 mil [200 microns]		
Curing Method	Heat		
Supported Formats	GERBER RS-274X, jpg, png, tiff, bmp		
Pick & Place Capability			
PNP Technology	Vacuum Pickup, Computer Vision, Automatic Tip Swap		
Camera	5 MP, Upward Facing		
Tray: Types	Tape Individual components		
Package Size	SOIC, SSOP, TSOP Type II, TSSOP, QFP.	SOIC, SSOP, TSOP Type II, TSSOP, QFP.	SOIC, SSOP, TSOP Type II, TSSOP, QFP.
Min. Pitch Size	0.6 mm	0.5 mm	0.4 mm
Tape Tray: Number of slots X Tape Width	6 X 8mm Tapes, 2 X 12mm, 1 X 16mm Cut Tapes		
Tray: Parts Loaded	Max. 42 per batch		
Min. Part Size	0603 [1608 Metric]		
Max. Part Size	0.78" X 0.78" [20 X20 mm]		
Supported Formats	Centroid file (text file describing Reference Designator, Footprint, X/Y location, and Rotation). The file can be generated by your CAD tool		
General Specifications			
Max. Substrate Side	6" X 6" [152X152 mm] [X/Y]		
Max. Circuit Size	4.9" x 4.8" [125 x 122 mm] [X/Y]		
Heads: Weight	Less than 1.1 lbs [500g] per head		
XYZ Positioning Repeatability	± 0.8 mil [20 microns]		
XYZ Positioning Resolution	0.4 mil [10 microns]		
Power	DC 24V 22A		
Connection	Ethernet, Wi-Fi		
Software Installation	Software runs onboard		
System Requirements	Web browser (platform-independent)		
Recommended Browser	Firefox, Chrome		
Ambient: Operating	50-100F [10-40 Celsius]		
Heat Bed: Operating	75-300F [25-150 Celsius]		
Heat Bed: Max	340F [170 Celsius]		
Upgrading	Can be upgraded to the Enhanced or Professional later	Can be upgraded to the Professional Package later	

All Important Accessories

SV2 INK SUPPLY



- 1x SV2 Conductive Ink Cartridge
- 1x SV2 Insulating ink Cartridge
- 20x FR4 (6x6")
- 10x Kapton sheet (6x6")

SV2 Conductive Glue Bundle

- 3x Conductive Glue Syringes (0.9mL)
- 3x Microdispensing Tip (9 mil)



Complete Rivet Press Set and 8" Shears



The perfect accessory for your BotFactory Squink, SV2, and SV2 Pro. Add plated through-holes to your 3D Printed PCBs with the Rivet Press and cut the print out of your sheet of FR4 with the 8" Shears. This set includes 1 mm (40 mil) rivets and matching toolhead which is the ideal size for placing most pin headers and connectors. Custom rivet and tool sizes are available upon request.

