

YOUR GUIDE TO GETTING STARTED IN DIGITAL FABRICATION

How to make money,
expand creativity,
and discover new
opportunities with
compact digital
fabrication technology.

Featuring:

- Integrated Printer/Cutters
- Digital Cutters
- Direct-to-Object Printers
- Impact Printers
- 3D Milling Machines
- Desktop Engravers
- Laser Decorators



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What is Digital Fabrication?

While it may sound complex, digital fabrication is simply the process of using machines to create physical objects from digital designs. Desktop digital fabrication technology provides users with design flexibility, precision, and control over the production of custom products, for endless applications.

Not surprisingly, digital fabrication has become popular with hobbyists, educators, and businesses.

For Hobbyists



Customizing

Digital fabrication allows hobbyists to produce highly customised objects that reflect their personal preferences and creativity. Whether it's designing unique jewelry, customised toys, or colourful T-shirts, users can bring their ideas to life.

Prototyping

For enthusiasts involved in apparel decoration, cosplay, or DIY projects, digital fabrication offers a quick and efficient way to prototype designs before committing to a final version. This iterative process helps creators refine their ideas and designs.

Experimenting

Engaging with digital fabrication technologies provides a rich learning experience. Hobbyists can try out new skills across various applications and processes, enhancing their abilities while having fun.

For Businesses



Custom Manufacturing

Businesses can create custom products tailored to individual customer requirements, offering a personalised experience, higher customer satisfaction and higher profits.

Supply Chain Flexibility

Digital fabrication can reduce or eliminate reliance on external production while allowing for on-demand fulfillment, creating a more nimble and sustainable supply chain.

Rapid Prototyping

In product development, digital fabrication allows for quick and cost-effective prototyping of designs, speeding up the iteration process and reducing time-to-market.

For Educators



Hands-on Learning

Digital fabrication is an engaging way to teach concepts related to engineering, design, graphics communication, science, and technology. Students can bring abstract concepts to life, and put what they learn into practice.

Interdisciplinary Skills

While fabricating designs, students develop a wide range of skills that are transferable and valuable in various academic and professional contexts.

Real-World Applications

Exposure to digital fabrication technologies prepares students for careers in fields like product design, engineering, graphics communications, manufacturing, and more.

Whether pursued as a creative outlet, educational tool, or business strategy, digital fabrication empowers individuals and organisations to turn their ideas into reality.

Types of Digital Fabrication Technology

There are compact devices available to help with just about every type of digital fabrication, each with its own unique set of capabilities. Here are some of the most common technology types and their uses.



Integrated Printer/Cutters

Integrated printer cutters combine the functions of both a digital printer and a cutting plotter. They can print full-colour designs on materials such as adhesive vinyl, heat transfer vinyl, and various types of paper, as well as precisely cut out printed designs. These devices are popular for creating stickers, decals, apparel heat transfers, posters, and packaging prototypes.



Digital Cutters

Digital cutters, also known as cutting plotters, use a small, sharp blade to cut through materials like vinyl, paper, fabric, and cardstock. These machines are often used to cut various shapes, letters, and designs for items like jersey numbers, decals, and packaging.



Direct-to-Object Printers

Direct-to-object printers use ultraviolet (UV) ink to output colorful designs directly onto wood, metal, glass, leather, plastic, textiles, and many other unique materials. UV printers with adequate height clearance can also print directly on 3D objects and products like sporting goods, technology and fashion accessories, tumblers, tiles, tabletops, and more.



Impact Printers

Metal impact printers use a durable stylus to strike a metal with high speed and precision to reproduce graphics. They are used to personalise items ranging from gifts and smart devices, to jewellery, accessories, and more.



3D Milling Machines

3D milling machines use a rotary spindle to remove material from a workpiece, shaping it into a desired three-dimensional form. These machines can mill a variety of materials, including ABS, foam, wax, metal, plastic, and wood, to create precise and intricate shapes. Milling machines are often used in prototyping and part making.



Desktop Engravers

Desktop engravers are compact machines designed to etch or engrave designs onto various materials such as wood, metal, acrylic, and plastic. They use a laser or a rotating bit to cut into the material's surface, creating intricate designs, text, and patterns. These machines are commonly used for creating personalized gifts, awards, signage, jewellery, and part markings.



Laser Decorators

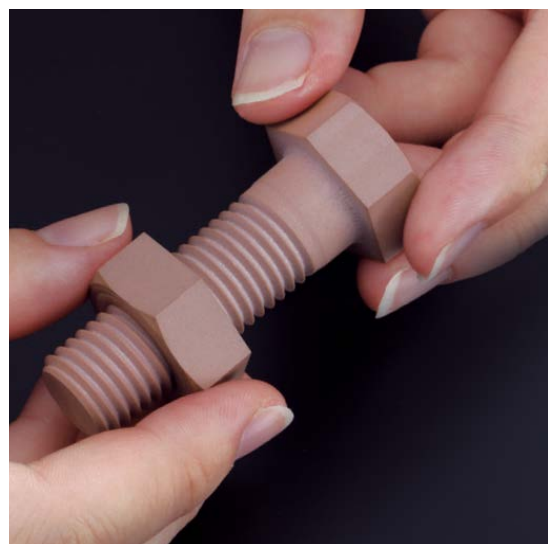
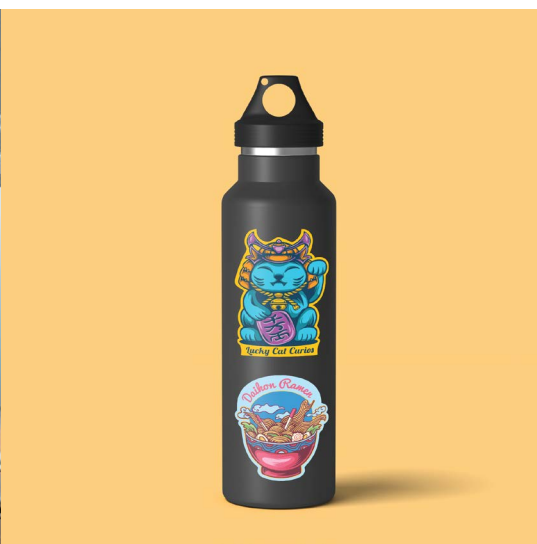
Laser foil decorators are hot foil transfer machines that can be used to personalise polycarbonate, acrylic, and leather items with metallized foil logos, designs, and text. Easy to use and safe to operate, laser foil decorators are often used for creating custom gifts and high-end packaging.





Common Applications

	Signs, Posters, Banners	Stickers & Decals	Apparel	Interior Décor	Product Customization	Prototyping, Part Making
Integrated Printer/Cutters	✓	✓	✓		✓	
Digital Cutters	✓	✓	✓		✓	
Direct-to-Object Printers	✓			✓	✓	✓
Impact Printers				✓	✓	
3D Milling Machines					✓	✓
Desktop Engravers	✓	✓		✓	✓	✓
Laser Decorators	✓	✓		✓	✓	



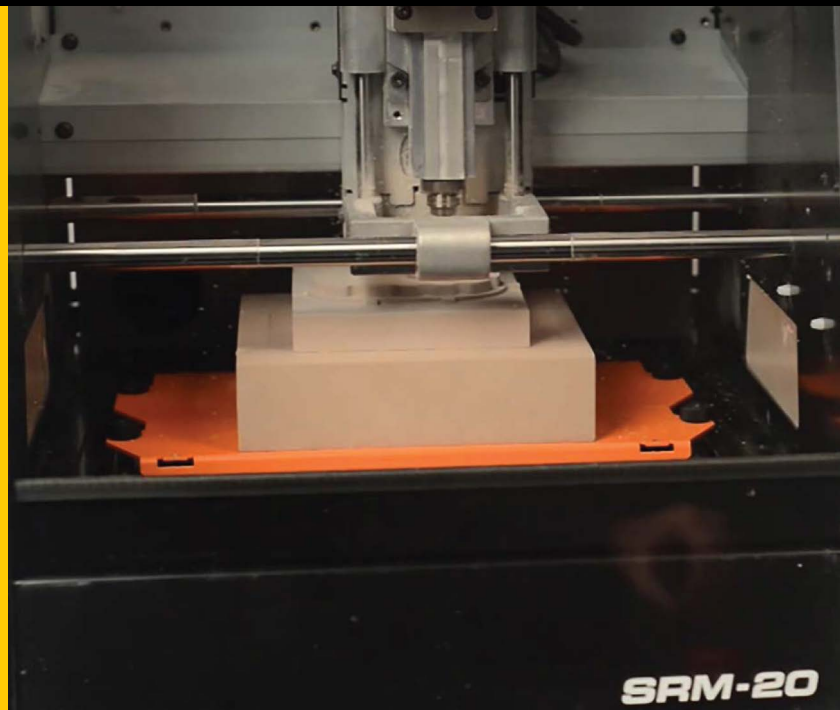
From Design to Output

Today's digital fabrication devices are designed to be user-friendly and intuitive, making it easier than ever to turn your idea into reality. With desktop devices, you can input your design from the design software, make appropriate selections based on your material and desired output, and watch as the digital fabrication device produces your design.

Go Pro or Take It Slow?

Whether you're planning to launch a business or just have some fun, the choice to invest in entry-level and/or professional equipment is an important one. That's where VersaSTUDIO desktop digital fabrication devices come in – striking the perfect balance between professional-level quality and productivity, with entry-level ease of use and an attractive price for value. VersaSTUDIO devices are built to provide results no matter what pace you set, and provide consistent results from your first attempt through to your final products. They are versatile, durable, and capable production assistants.

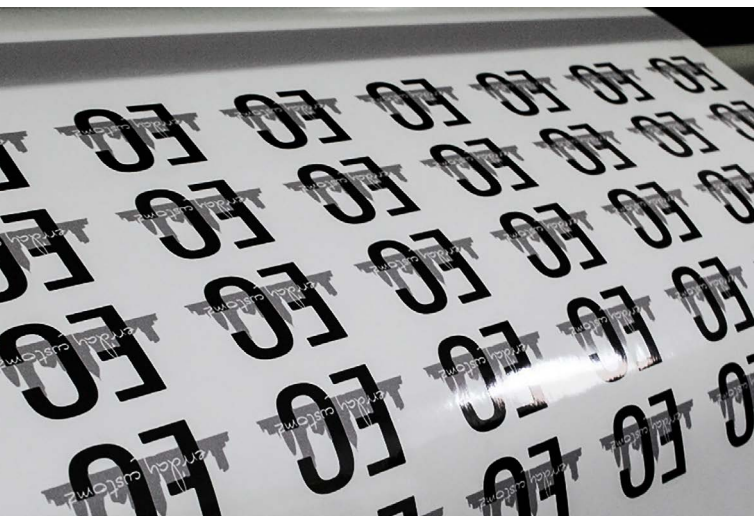
With VersaSTUDIO, as your needs increase, it's easy ramp up production, add another device to your workflow, or even to transition to a larger Roland DG device with a similar software and user experience.



“We’ve used it [the SRM-20] for the production of smaller items, to making moulds for body work and other composite components.”

Mitch Timms

Erebus Motorsport
Prototyping | Parts





“The BN-20 has superb print quality and is affordable for a startup like ours.”

Konstantins Dzedzels

Arteehub

Decals | Stickers

“My VersaSTUDIO has been a game changer.”

Amber Bowie

MM and Co Print Shop

Apparel



“My BN-20D makes creating custom apparel even faster, and the color and performance have been great. My clients love it!”

Amanda Jackson

Blanks & Vinyl Shoppe

Apparel

Making Things, Made Easy

Roland DG has developed its VersaSTUDIO line specifically for desktop digital fabrication. These machines are all designed with new users in mind and are easy to set up and run. Plus, all Roland DG devices come bundled with the software you'll need to get started and are backed by Roland DG's legendary service and support.

As you begin fabricating your ideas, you may find you want to expand your applications. Roland DG's VersaSTUDIO line offers additional accessories and software for its devices, such as FlexiDESIGNER VersaSTUDIO Edition design software for BN2 series printers, or Dr. Engrave software for engravers, allowing you to broaden your range of applications.



A Closer Look



Integrated Printer Cutters

Roland DG's VersaSTUDIO desktop printer/cutters include the BY-20, BN2 series, and BN series, with various options for print speeds, ink sets and application types – all of which offer excellent versatility in a compact package. Print and cut full colour designs on adhesive vinyl, paper, canvas, heat transfer material, banner vinyl, static cling, and more with a BN2 or BN, to create a wide range of products. Or choose a direct-to-film device, like the BY-20, to print and transfer graphics on apparel and fabrics. VersaSTUDIO printer cutters come complete with user-friendly software, so you can start creating right out of the box. Popular applications include stickers, apparel, tote bags, signage, window clings, vehicle graphics, labels, posters, fine art prints, and much more.

ROI for Custom T-Shirt Heat Transfer

Materials	Cost for Job
T-shirt Blank	\$4.70
Material + Ink	\$1.20
Total Material Cost	\$5.90
Retail Price	\$23.00
Pieces/Hour (Depends on complexity)	90
Profit per Hour (Retail Price - Total Material Cost) × Pieces/Hr	\$1,539



A Closer Look



Digital Cutters

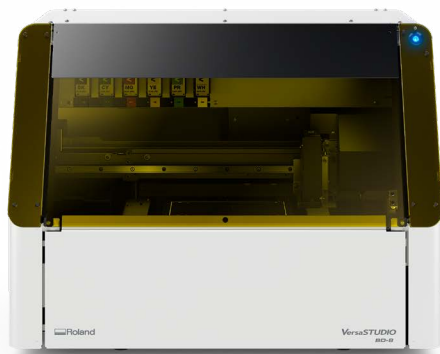
Compact, powerful and easy to use, the VersaSTUDIO GS2 desktop cutter provides everything you need to cut precision designs from adhesive vinyl, heat transfer vinyl, film, papers, card stock, and more.

With incredible versatility, the GS2 makes producing signs, decals, vehicle graphics, window tints, stencils, and apparel decoration a breeze.

ROI for Contour Cut Decals

Materials		Cost for Job
Vinyl		\$1.25
Transfer Mask		\$0.50
Total Material Cost		\$1.75
Retail Price		\$31.00
Pieces/Hour (Depends on complexity)		35
Profit per Hour (Retail Price - Total Material Cost) × Pieces/Hr		\$1,023.75

A Closer Look



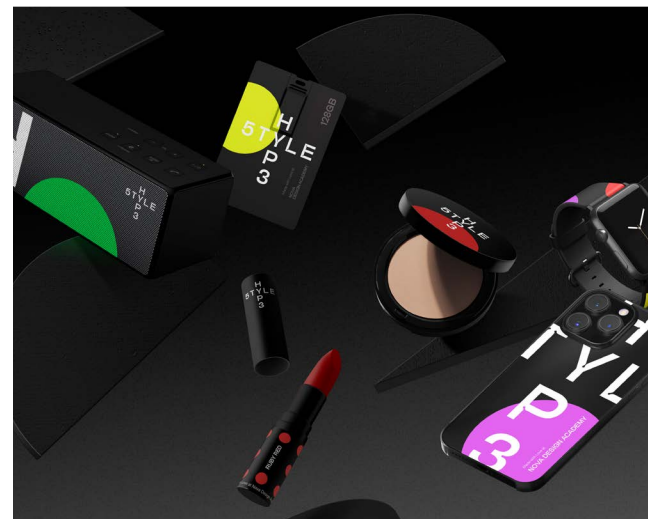
Direct-to-Object Printers

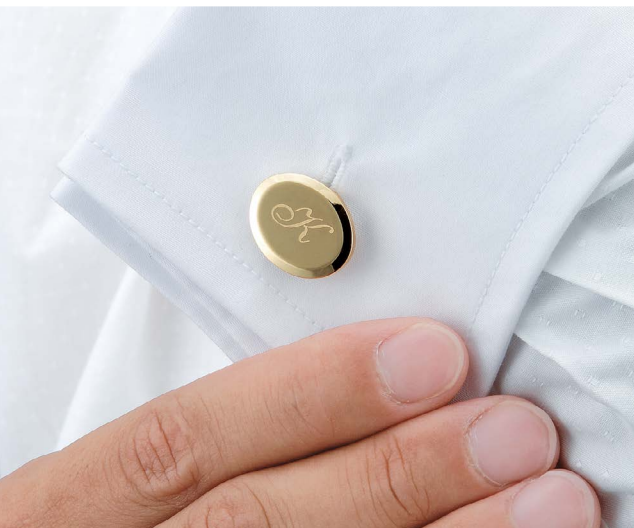
The VersaSTUDIO BD-8 UV flatbed printer fits on just about any desk and prints vibrant graphics and detailed text directly onto substrates and three-dimensional objects up to four inches thick. Affordable, safe, and simple to use, the BD-8 makes product customisation and personalisation quick and easy – even for those with no prior print experience. Plus, it comes bundled with design and output software that’s equally powerful and intuitive.

With the BD-8 you can direct-print onto a wide range of materials and items – even smaller cylindrical objects with the optional rotary axis unit.

ROI for Customised Bluetooth Speakers

Materials	Cost	Cost for Job
Bluetooth Speaker		\$13.70
Ink		\$0.11
Total Material Cost		\$13.81
Retail Price		\$59.00
Pieces/Hour (Depends on complexity)		14
Profit per Hour (Retail Price - Total Material Cost) × Pieces/Hr		\$632.66





A Closer Look



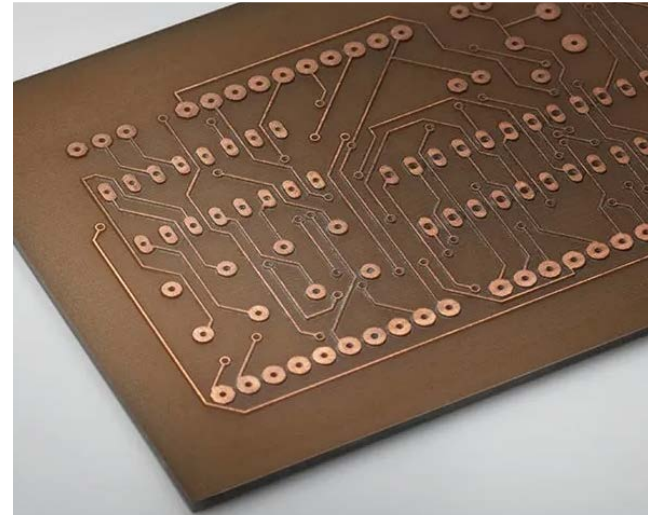
Impact Printers

The VersaSTUDIO MPX-90S is a compact, easy-to-operate device for personalizing and adding value to metal items. A durable diamond-tipped stylus produces delicate gradations, detailed fonts, and photographic quality with high-speed precision. Compact and fully enclosed, the MPX-90S runs safely and quietly in any office, kiosk, classroom or store, and comes with easy-to-use METAZA Studio software.

With the MPX-90S, you can personalise hundreds of metal items, including pens, jewelry, sunglasses, watches, dog tags, trophy plates, and so much more.



A Closer Look



Milling Machines

Roland DG's SRM-20 compact mill paired with an optional Engraving Kit makes it an ideal solution for simple, efficient, precise and affordable milling and engraving. The compact size fits into any home, office, or classroom desktop environment, while included software and accessories make it easy to get started.

The SRM-20 can mill and engrave on a wide range of materials including plastic, wood, foam, acrylic, ABS, PC boards and more.

ROI for Part Prototype

Materials	Cost for Job
Acetal Material	\$31.00
Labor (1 hour)	\$53.00
Total Cost	\$84.00
Retail Value	\$584.00
Profit (Retail Price - Total Cost)	\$500



A Closer Look



Desktop Engravers

Roland DG's DE-3 engraver includes a host of intuitive and professional features to effortlessly scribe and engrave onto a huge range of materials. The DE-3 comes complete with Dr. Engrave Plus software, including functions like automatic layout, depth adjustments, and variable data tools for quick engraving of nametags, serial numbers and more.

The powerful yet compact DE-3 is ideal for engraving on giftware, signage, trophies, tools and industrial products. Personalise brass, aluminum, copper, plastic, wood and more, with speed, precision and ease.

ROI for 50 Engraved Name Badges

Materials	Cost for Job
Engraving Stock & Magnet Fastener	\$124.00
Labor (1 hour)	\$53.00
Total Cost	\$177.00
Retail Price	\$543.00
Profit (Retail Price - Total Cost)	\$366

A Closer Look



Laser Decorators

The VersaSTUDIO LD-300 laser decorator is fast, simple, and safe to operate. As a compact foil transfer machine, it's ideal for adding reflective foil graphics in various colours to personalise polycarbonate, acrylic, and leather items. Included METAZA Studio design software is user friendly and offers both basic and advanced features for printing logos and text.

The LD-300 is perfect for adding stylish foil logos, designs and text to items like phone covers, leather handbags, packaging, notebooks, promotional products and more.



Where to Start

Defining Your Goals

The best place to start is to first determine which products you'd like to fabricate, that way you can begin evaluating which VersaSTUDIO device(s) will be most effective for your application. While some projects are best made using one specific device, you might be able to produce other projects with more than one type of device (e.g., promotional products can be customised using a UV printer or a printer/cutter or a laser decorator). Knowing what you want to create will help you select the best tool for the job, and Roland DG experts are available to help you decide.



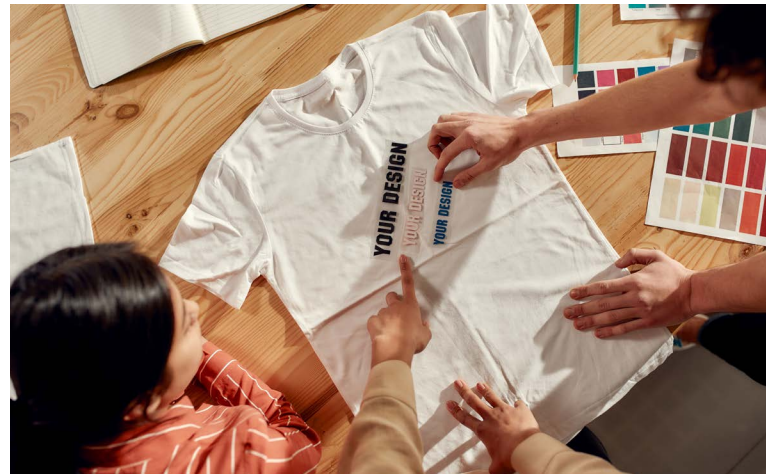
Learning and Growing

Experimenting with your designs, materials, and processes will allow you to test and refine your output until you are ready to share your products with the world. As your production needs grow, your professional VersaSTUDIO device will continue to provide you with consistent high-quality output. Built to last, with legendary reliability and support, Roland DG devices also come with a trouble-free warranty, for added peace of mind.

With VersaSTUDIO, you can bring your ideas to life.

Getting Started

Each VersaSTUDIO device comes with what you need to get started. Setting up the device is easy, with out of the box, step-by-step instructions. Online videos will help you become familiar with the capabilities, and offer additional inspiration for what's possible. In addition, Roland DG offers online support and live technical support. But the most important element to getting started in desktop digital fabrication is you— just dive in and get started! And enjoy the process of creating, learning, and growing.



VersaSTUDIO

➤ Get Started

Next Steps

Request a Sample

If you'd like to see how Roland DG machines can help you bring your ideas to life, request a sample.

<https://www.rolanddg.com.au/company/contact>

Talk to a Product Expert

We hope this guide has given you the information you need to start your digital fabrication journey. For more information, talk to an expert, here.

<https://www.rolanddg.com.au/company/contact>

Useful Links

01 Essential Small Business Start-Up Info

[Guide to starting a business](#)

02 Media, Heat Press and Accessory Supplies

www.rolanddg.com.au/dealers

Roland DG's nation-wide dealer network supply a wide range of media, heat presses and accessories to complement your Roland DG desktop machine.

03 Roland User Stories

www.rolanddg.com.au/gallery/case-studies

See how others have used Roland DG technology to build their business.

04 Video Content

[Roland DG Australia YouTube channel](#)

Where you can see customers stories, machine overviews, support videos, and other videos to help you choose the technology that's right for you.

05 Roland DG Blog

The [Roland DG Australia Blog](#) offers a wealth of relevant info for small business start-ups.

06 Roland Academy

[Roland Academy](#) offers specialised training to assist our customers to get the most out of their Roland DG equipment and maximise the return on their investment.

07 Roland Academy

[Roland Rental](#), Roland DG's trusted finance program, makes it easy for you to purchase Roland DG equipment without the upfront investment..

For more ideas and information on getting started in digital fabrication,
visit www.rolanddg.com.au/VersaSTUDIO

