

RapidMade 15883 SW 72nd Avenue Portland, OR 97224 503-943-2781 | info@rapidmade.com

# 3D Printed Parts for Small Businesses

Small businesses face many challenges of scale and time, especially as they develop their products. Prototypes which are subject to frequent changes, as well as small initial production runs, can be prohibitively expensive to produce with traditional manufacturing. Moreover, the tooling required for these parts can take weeks to produce.

For start-up businesses trying to get up and running, 3D printing can provide timely and cost-effective production solutions for prototypes and final products alike. 3D printing with <a href="RapidMade">RapidMade</a> makes it easy to iterate complex designs and provides excellent value at much smaller quantities than traditional manufacturing.

### Introduction

<u>Hoyt St Electric Skateboards</u> is a Portland-based performance electric skateboard company with a focus on sustainability. They came to RapidMade during their product development process for help developing an electronics enclosure and other plastic parts for their skateboards.

The Hoyt St team needed durable parts that could stand up to the rigorous performance demands of their skateboards, but they were struggling with the cost and time requirements of metal-stamped parts. Our product design and 3D printing services helped them develop and validate their parts at less cost using the HP Multi Jet Fusion 3D printer.

Once they were satisfied with their designs, we were able to easily move into full production runs to help them get their product launched as fast as possible.





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## **The Problem**

Initially, the Hoyt St team attempted to manufacture these parts out of stamped metal; however, this approach had a few major drawbacks. Stamped metal parts require expensive tooling that is slow to produce, making it an inefficient technology for prototyping.

Moreover, these parts would likely have had to be manufactured offshore, further increasing development time. As a start-up business, they simply did not have the time or the budget to design their products using traditional manufacturing technologies.

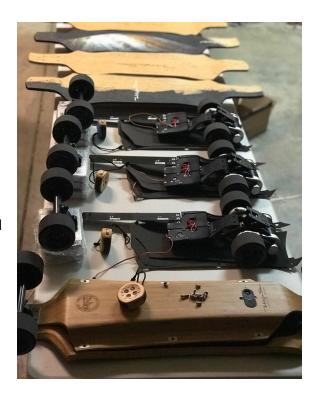


#### **Our Solution**

RapidMade used the <u>HP Multi Jet Fusion 3D printer</u> to help Hoyt St Electric Skateboards quickly design and prototype their parts locally, saving them tens of thousands of dollars and months of development time.

Unlike metal stamping, 3D printed parts don't require any tooling, which allowed the team to quickly iterate their designs at a fraction of the cost. By making their parts locally, they were able to avoid expensive and time-consuming international shipping, as well as improve communication and security for their intellectual property.

The 3D printed nylon parts we produced with the Multi Jet Fusion were durable enough to stand up to the demands of Hoyt St's performance skateboards. The parts also had a high-quality finish right out of the printer, so they did not require any additional finishing.



Additionally, we were able to manufacture designs that would have been impossible with traditional manufacturing, like a control panel with integrated wiring ports. We even helped them validate their machined bamboo skateboard decks with 3D printed models.



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## From Development to Manufacturing

Once their parts were ready to move into production, we were able to start manufacturing at scale as soon as Hoyt St placed their order. Now, they can order more parts on demand, eliminating the need for a large inventory. Plus, we can help them quickly modify their designs as their business continues to grow.

Running a small business can be challenging, especially in the modern business landscape where product lifecycles seem to get shorter every year. Starting a small business is even harder. 3D printing and additive manufacturing can help small businesses increase their competitive advantages by providing cost-effective custom manufacturing for small- to medium-sized production volumes. Not only can 3D printing help businesses design their products, but it can also provide full-scale production solutions as businesses grow.

#### **Learn More**

For start-up businesses in product development, plastic 3D printing is often the best and least expensive technology for quickly designing and manufacturing high-quality products. If you'd like to learn more about our <u>product design</u>, <u>engineering</u> or <u>custom manufacturing</u> services, give us a call at 503-943-2781 or get a quote today!