

Time-to-market and cost reduction of motorcycle customization thanks to 3D Printing.

ABOUT

Born Motor

The automotive company BORN Motor Co., based on Calella, Barcelona, produces high quality deconstructed motorcycles. Besides customizing, BORN Motor Co. also designs limited editions and upgrade kits for motorcycles. Last but not least, as an industrial design studio, collaborates in the aesthetic design of several motorcycle manufacturers.

Exclusivity and originality are distinctive features for the BORN Motor products. Their design and activities follow a purpose and are strongly inspired by its surrounding individuals.

COMPANY

BORN Motor Co.
<http://bornmotorco.com>

INDUSTRY

Automotive, Engineering, Product Design

APPLICATION

Functional Parts: End-use parts and functional validation



CHALLENGE

Given the culture and concept of the company, BORN Motor use traditional manufacturing technologies, like laser cutting and CNC milling, or create custom pieces by hand.

However, both options are time-consuming and expensive for short runs of production. In addition, such technologies limit the design freedom and don't allow creating complex, custom pieces.

Despite BORN Motor has contemplated investing in injection molds for certain parts, the low volume inherent to its business advice against it.



SOLUTION

3D Printing has allowed BORN Motor to speed up his creative process, from the design to the manufacturing and testing stages.

The team is now capable to iterate faster and get refined designs in a very straight-forward workflow.

3D printing also has allowed BORN Motor to overcome design limitations caused by the previous manufacturing technologies used. Thanks to the versatility that BCN3D printers offer, BORN Motor engineers now are able to fabricate end-use pieces made of different materials, such as Nylon, PET-G or ABS, depending on the final use of the part.



RESULT

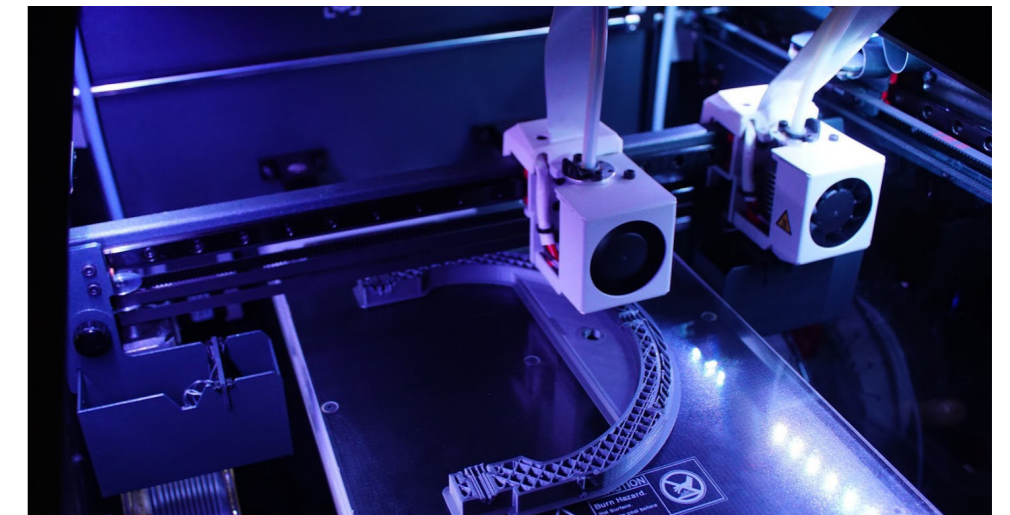
3D printing is now part of the daily life at BORN Motor, empowering its designers to create more complex parts with a fraction of the previous effort, time and money. While before the staff were spending time in handcrafted components, now they can focus on higher added-value parts.

3D printing for internal or non-aesthetic parts has opened the door to new solutions and design strategies, enriching the Design process and the final outcome, while reducing the time-to-market and overall labor costs.

COSTS

Costs are affected by several factors: from size to function and geometry influence in the decision of which traditional manufacturing technology is ideal for every single custom part. The following table is based on the modification of a dash housing for a Honda CB250.

	HANDCRAFTED	MACHINED	BCN3D PRINTERS
ITERATIONS	1/part	2/part	6/part
COSTS <i>(labor, materials and service fee)</i>	1500€/part	250€/part	12€/part
LEAD TIME	24h	2-3 weeks	5-8h/part



About BCN3D technologies

BCN3D Technologies is one of the leading manufacturers of desktop FFF 3D printers worldwide. Based in Barcelona, the activity of BCN3D began in 2012 and its aim is to help innovators and creatives to change the world, by offering them the best possible experience to materialize their unique ideas.

<https://www.bcn3dtechnologies.com>

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