



## The Story Behind Rehook

Rehook is a simple tool that gets your chain back on your bike without the mess. It was developed and launched using the latest 'Laser Sintering' techniques and materials used for Formula 1 racing components, enabling high quality production parts to be produced and the market to be tested, without a large initial investment. Using the power of 3D printing, Rehook was rapidly prototyped. With product development cycles measured in hours (not weeks) the team were able to fine tune the design, perfect the tool and test the market within a matter of week. Development of the tool, testing the market and ultimately launching the new product was achieved on a shoe string budget. This would simply not be possible with any traditional manufacturing methods.

The concept of Rehook is simple. A hook is used to hold the chain and a specially designed pin holds the tension from the chain so you can replace a dropped chain with one (clean) hand. From the outset, the team was determined to turn this simplicity into flawlessly execution. The product required exact sizing and positioning to work with a range of gear configurations. The ergonomics needed to be perfect for it work as quickly as possible and distribute the tension from the chain effectively in the hand. The hands-on nature of the tool meant it could only be thoroughly tested by using it with real bikes. Because of this a Maker-Bot was used to rapidly produce low cost 3D printed prototypes of the product. With this approach, it was possible to test multiple physical versions of the product per day with a variety of bikes and gear configurations. Minute refinements were then made to both the function and the ergonomics of the tool, resulting in a product that both looks and works great.

Once the design was ready, 3D Hubs, an online 3D printing network, was used to source 3D printing samples using 30+ materials and techniques. Out of the samples 'Selective Laser Sintering' was chosen as the solution as this removed the need for support structures in the print which mean no manual finishing was required for each print. SLS uses lasers to solidify a bed of powder into shapes suitable for use as end use parts. It is also well suited to higher volume runs and has a rugged finish which both hides the printing layers and gives an industrial appearance like drop forging which was ideal for a tool.

The market was tested at The Cycle Show 2016 at NEC Birmingham (UK). The show ran for 4 days and attracted over 29,000 attendees. This gave the company the opportunity to get some specialist feedback and test the product with consumers. The show was an expense that took the project over the initial launch budget, however the product proved a success and the costs of the show were recouped by sales at the show. After only 4 days the company had the confidence to continue the product.

SLS 3D printing supplier 3D Print Direct had capacity to produce around 400 units per month which was ample for an initial pilot and ongoing development. This allowed demand for initial direct to consumer sales to be met, via [Amazon.co.uk](http://amazon.co.uk) as well as the company's website <http://rehook.bike>. Now that the product and company have matured, Rehook has moved to injection moulding to increase production capacity. Enabling the company to scale online B2C sales and grow additional channels.

Just 12 months on from starting to develop of the product, several thousand units have been sold, the product has launched across all Amazons European marketplaces and overseas distribution agreements are being finalised. All with the same small family team.

Rehook is returning to the NEC for The Cycle Show 2017 to launch packages for retailers.

*“The Cycle Show was key to launching Rehook so we are delighted to be returning again this year”*

*“Rehook was created after dropping a chain on my daily commute, I turned up late at the office, covered in oil.”*

*“3D printing is unleashing a whole new wave on product innovation. It has been a fantastic to be part of the first wave of it”*

– Wayne Taylor, Managing Director Rehook

#### **Media**

Media Links and Details

<http://rehook.bike/media>

Website

<http://rehook.bike>

Product Images and Logos

<http://images.rehook.bike>

Videos

<http://watch.rehook.bike>

Amazon Links

<http://rehook.bike/amazon>

Please get in touch for further details or any queries,

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