# Eurobike: Bicyclists brake better with brakes from 3D printers by TRUMPF

TRUMPF and Trickstuff bring 3D printing to the bicycle industry // 3D printing makes bicycle parts particularly light and stable at the same time // Sustainable brake levers made of titanium can be produced cost-effectively thanks to 3D printing

*Ditzingen, Pfaffenweiler, Frankfurt, June 19, 2023* – High-tech company TRUMPF and bicycle brake manufacturer Trickstuff will present titanium brake levers for bicycles made by 3D printers for the first time at the Eurobike bicycle trade show in Frankfurt. 3D printing is what makes the cost-effective processing of titanium possible in the first place.

Until now, the bicycle industry has often used carbon as a material for highquality brake levers. However, this material has a poor environmental record. Manufacturers cannot recycle carbon; they must dispose of these parts after their life cycle, usually in waste incineration plants. Titanium has a better environmental footprint compared to carbon and is also far more robust. Manufacturers can make much stiffer brake levers from titanium compared to other materials.

### 3D printing for custom brake levers and mass production

Manufacturers can use 3D printers to customize brake levers. This applies not only to the design of the titanium components. Manufacturers can also customize the lever forces of the brake to suit the cyclist. "Since 3D printers from TRUMPF are also designed for series production, the bicycle industry can also use them to manufacture large quantities. As a result, components that are subject to heavy stress can be produced cost-effectively," says Christian Lengwenat, application engineer at TRUMPF.

TRUMPF 3D printers also allow companies in the bicycle industry to speed up their prototyping. "With 3D printers, manufacturers can produce different prototypes simultaneously in one printing process. This speeds up the

## **Press Release**

prototyping process, which is important for the bicycle industry, many times over," says Lengwenat. Until now, manufacturers have mostly milled the prototype parts. This is time-consuming and expensive.

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**TRUMPF technology for bicycle industry** With 3D printers from TRUMPF, the bicycle industry can produce brake levers, for example.

**Manufacturing brake levers with TruPrint 1000** The TruPrint 1000 3D printer from TRUMPF is suitable for manufacturing bicycle components such as brake levers.



**Brake lever made of titanium** With 3D printers from TRUMPF, users can process different materials, such as titanium.

#### About TRUMPF

TRUMPF is a high-tech company offering manufacturing solutions in the fields of machine tools and laser technology. The Company drives digital connectivity in the manufacturing through consulting, platform products and software. TRUMPF is a technology and market leader in highly versatile machine tools for sheet metal processing and in the field of industrial lasers.

In 2021/22, the company employed some 16,500 people and generated sales of about 4.2 billion euros. With over 80 subsidiaries, the TRUMPF Group is represented in nearly every European country as well as in North America, South America and Asia. The company has production facilities in Germany, France, the United Kingdom, Italy, Austria, Switzerland, Poland, the Czech Republic, the United States, Mexico and China.

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