Additive Industries
Industrialising 3D printing for functional parts

# Press release

## Aidro Hydraulics and Fraunhofer winners of Design for Additive Manufacturing Challenge

### Winning designs of Additive Industries contest underline industrialization of additive manufacturing

Eindhoven (The Netherlands) – March 15, 2018
During the awards dinner of the 6th edition of the Additive World Conference, Chairman of the Jury, Ultimaker co-founder, Erik de Bruijn, announced Aidro Hydraulics and Fraunhofer Institute winners of the Additive World Design for Additive Manufacturing Challenge. All six finalists, three in the student category and three professionals, pitched their designs in front of the 5 member jury. After deliberation they made a well-advised selection in both categories. The awards, a set of gears and a hydraulic manifold, were for redesigns of very common industrial parts where the impact of the design for additive manufacturing would be substantial.

In the student category the first prize went to Yogeshkumar Katrodiya, an Indian student currently finalizing his Master-study at the Fraunhofer Institute in Augsburg, Germany. Yogeshkumar designed a fully integrated shaft and gear with internal channels transporting lubricant to the gears for cooling. The helix shaped cooling channels were applied to increase the cooling capacity and they demonstrated the unique design freedom of metal additive manufacturing. With help of part consolidation and topology optimization, Yogesh obtained a weight reduction of 50%. Decisive for the jury was the generic applicability and the large number of potential applications for his design.

The winner of the professional category was Aidro Hydraulics of Italy, headed by Alberto Tacconelli. Aidro CEO Valeria Tirelli presented their compact redesign of a generic hydraulic manifold for a street cleaning vehicle, designed by Gaetano Corrado. The redesign consolidated two parts, is smaller than its predecessor, and has an optimized flow because of improved, curved channels. Moreover, the problem of leakage, caused by auxiliary plug failure, is eliminated and the weight is reduced by an impressive 70%. Aidro Hydraulics won the jury over with the massive applicability and commercial viability of their design.

All finalists received a free 1 year licence of Altair Inspire and Autodesk Netfabb software. Yogeshkumar Katrodiya, as student winner, took home an Ultimaker 2+ printer while the team of Aidro Hydraulics won an Ultimaker 3.

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## More information

Images of the winners, finalists and the jury of the Design Challenge 2018 can be found on the Press page of the www.additiveindustries.com website.

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**About Design for Additive Manufacturing Challenge**
In order to grow the number of examples and inspire many other industries to develop dedicated applications for industrial 3D printing, Additive Industries has launched the fourth Additive World Design for Additive Manufacturing Challenge at the renowned Dutch Design Week in Eindhoven in October 2017. Competing in two categories, both professionals and students were encouraged to redesign an existing conventional part of a machine or product for 3D printing. The winners were announced at the Additive World Conference on March 14th, 2018 in Eindhoven.

Partners in the Design for Additive Manufacturing Challenge are leading CAE technology provider (e.g. Topology Optimization) - Altair Engineering and prosumer 3D printer manufacturer Ultimaker. The contestants were supported by Additive Industries' Process & Application Development team in topology optimisation during the design process and the winners in both categories take home the latest Ultimaker 2+ and 3 3D printer. All finalists receive a licence of Altair's Inspire software and Autodesk NetFabb software. Besides that the award winning designs will be printed in metal by Additive Industries.

**About Additive Industries**
Additive Industries is accelerating industrial additive manufacturing of high quality, functional, metal parts by offering a modular end-to-end 3D printing system including a seamlessly integrated information platform to high end and demanding industrial markets. With substantially improved reproducibility, productivity, and flexibility, Additive Industries redefines the business case for series production of additive manufacturing applications in aerospace, automotive, medical technology and high-tech equipment.