



WEBER STATE UNIVERSITY

Weber State University

Use Case – High-Strength Tooling

Customer Profile

The Advanced Research and Solutions Center at Weber State University serves as an innovation and collaboration space for local industry, primarily in the aerospace, defense, and advanced materials sectors. In addition, the center provides access to R&D resources that include additive manufacturing while offering educational and practical opportunities for students.

Challenge

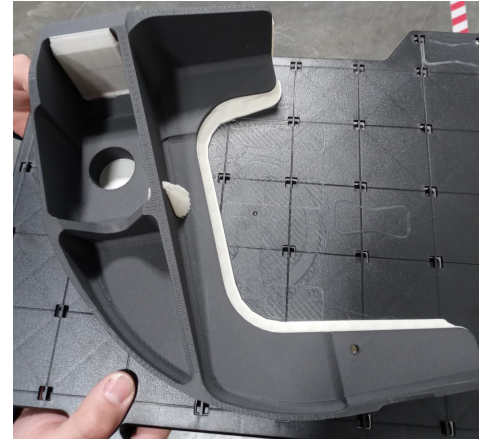
Providing students and local industry with the best opportunities for success requires access to current and emerging technologies, including additive manufacturing. However, existing Weber State additive capabilities relied on older 3D printers, which were slow and costly to operate, with few material options. This limited the Advanced Research and Solution Center's ability to meet student and local industry needs.

Solution

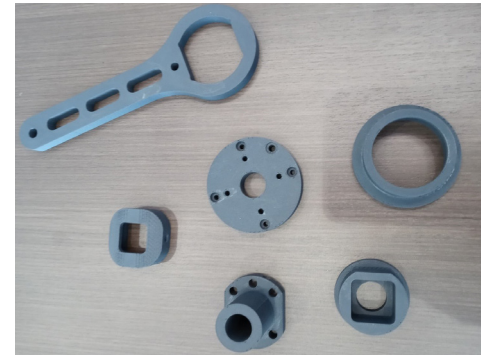
To strengthen its 3D printing capabilities, the university added a Stratasys F370[®]CR composite printer to complement its manufacturing and fabrication equipment. The F370CR operates with two composite materials and several other engineering-grade thermoplastics. The composite materials include FDM[®] Nylon-CF10 and ABS-CF10, which incorporate 10% chopped carbon fiber for added strength and rigidity.

Impact

Adding the F370CR printer gives Weber State University the capabilities of a current-technology 3D printer with more material options, including advanced composite polymers. The printer's ease of use and consistent print performance gives users a faster, more reliable means of developing 3D printed solutions. This ultimately helps achieve the facility's goal of providing innovative and leading-edge tools for its current and future students and customers.



Nylon-CF10 carbon-fiber aircraft check tool.



Parts for a bolt extraction tool made from Nylon-CF10 material.

F370CR Capabilities



2 High-Strength Carbon-Fiber Materials

F370CR Capabilities



6 Additional Thermoplastics