

System Capabilities

- › Print continuously, even during ground or sea transport
- › Tested in extreme cold (-40°F), extreme heat (122°F), high humidity, rain, condensation, operational shock, and vibration
- › Print advanced, high-temperature materials, such as metal replacements (ULTEM), biocompatible parts (PETG), flexible parts (TPU), and standard parts (Nylon, Nylon-CF, etc.)
- › Certified to MIL-STD-810H for operation and storage, AS9100D / ISO9001, and Made in USA
- › Train completely new operators in as little as 15 minutes with auto-calibration
- › Modular subsystems enable straightforward repair and maintenance in the field
- › Environmental sensors track the printing process to generate quality assurance reports for every part printed



Background

- › Commercial 3D printers lack the ruggedization and hardening needed for expeditionary operation
- › USMC, NIWC Pacific, US Army CCDC, and Craitor entered into a Cooperative Research and Development Agreement (CRADA) to develop and demonstrate FieldFab
- › Embedded within USMC and Army units for over 3 years to co-develop system capabilities and deploy in 25+ field exercises

Vision

FieldFab enables manufacturing in the most extreme of environments. With the help of our partners, Craitor is expanding access to 3D printing in the field. We aspire to create a digital, on-demand supply chain ecosystem that allows for the manufacturing of mission-critical components anywhere in the world.

Manufacture anywhere.

craitor.com / contact@craitor.com

Technical Specifications

3D PRINT SPECIFICATIONS

Nozzle Temperature < 500°C (932°F)

Bed Temperature < 200°C (392°F)

Chamber Temperature < 80°C (176°F)

Print Volume 280mm × 280mm × 280mm
(11.02" × 11.02" × 11.02")

Material Support All standard polymer filaments and polymer-based composites (i.e. ULTEM, TPU, Nylon-CF, PETG, Nylon, PLA, etc.)

ENVIRONMENTALS

Temperature Operational -40°C* to 50°C (-40°F* to 122°F)
Storage -40°C to 70°C (-40°F to 158°F)
** automatic system pre-heat enabled*

Certifications MIL-STD-810H, AS9100D/ISO9001,
Made in USA

INTERFACE AND ELECTRONICS

Digital Interface GETAC F110 with design suite,
digital data vault access

Power 80–264V, 47–63Hz
(AC outlet)

Power Consumption 1.2kW peak, 10A max

MECHANICALS

Housing LMDP plastic exterior, aluminum print shell

Dimensions 24" × 26" × 39"

Weight 190 lbs