

Technology Development Institute

Machining/Fabrication Capabilities

Bodor P3015T Fiber Laser



- 6kW laser generator capable of cutting 1" steel and 1/2" aluminum
- Dual 5'x 10' exchange tables
- 7" diameter tube capacity
- 20' length

HAAS ST-25Y CNC Lathe



- Y-Axis and Live Tooling
- 3" bar capacity
- 22.5" max cutting length

Knuth ABS 300 Vertical Cut Off Saw



- 12" cutting capacity
- Cutting angle 0-45 degrees
- Hydraulic feed for semiautomated cutting

OMAX 60120 Waterjet



- 5 axis head allows cuts up to 60 degrees off vertical
- 5' x 10' bed
- Cuts a wide variety of materials

HAAS UMC-500 Universal Machining Center



- X-Axis- 24", Y-Axis- 16", Z-Axis- 16"
- 15.7 diameter platter
- 30hp up to 12000 rpm
- Max cutting feed rate of 650 ipm
- 30+1 tool changer

Knuth Turnado 280/1500 Manual Lathe



- 56" max work piece length
- 3.1" spindle bore
- UP to 1600 RPM spindle speed

RMT B-Genius 10-200 Press Brake



- 200 tons with 10' bed
- Hydraulic tool clamping
- Automatic crowning compensation
- 5 axis back gauge

HAAS VF-6SS Vertical CNC Machining Center



- X-Axis- 64", Y-Axis- 32", Z-Axis- 30"
- 64" x 28" with a 4000 capacity
- 30hp up to 12000 rpm
- Max cutting feed rate of 833 ipm
- 30+1 tool capacity

Other Capabilities

- Bridgeport Knee Mill
- Acer Lathe
- Drill Presses
- Horizontal/Vertical Bandsaws
- 50 ton Piranha Ironworker
- Bead Blast Booth
- Parts Washer
- Vibratory Deburring Machine
- Powder Paint Booth
- MIG/TIG Welding and Oxy-Acetylene Cutting Torch
- Modular Welding Table & Fixtures



Development Institute

Additive Manufacturing Capabilities

Stratasys J850



- Process: Polyjet
- The Stratasys blends various types of UV cured resins to create parts and is used for final prototype models

Formlabs Form 3



- Process: Stereolithography (SLA)
- These printers use a laser to cure UV resin layer by layer that have a
- surface finish of plastic injection molded parts. They offer a wide range of resins that produce functional parts with desired characteristics, such as tough, flexibility, clear, heat resistant, or rigid. Two machine sizes available.

Stratasys F170



Raise 3D Pro 2 Plus



Modix BIG Meter

Formlabs Form 3BL



- Process: Fused Deposition Modeling (FDM)
- Similar to hobbyist machines in homes and offices, these printers melt a spool of plastic filament and deposit it onto a build platform in layers. They are most useful for making cost effective prototypes and have the ability to print with Polylactic Acid (PLA), Acrylonitrile Butadiene Styrene (ABS), and other common printing filaments. Multiple machine sizes available.

Markforged Mark Two



- Process: FDM with Continuous Fiber
- In addition to standard FDM capabilities, the Markforged also lays continuous fibers within each layer to reinforce the printed part.

Formlabs Fuse 1



- Process: Selective Laser Sintering (SLS)
- This printer uses a laser to melt plastic powder layer by layer to make a part that will be pulled from a vat of unfused loose powder.

Hexagon Absolute Arm 8525



- 7-axis arm with 2.5m reach
- This arm precisely measures objects for quality inspection and reverse engineering. The points gathered from the object are processed to create a 3D CAD file.