

Manufacturing

Engineering, Design, and 3D Printing				
Machine	X	Y	Z	Notes
Solidworks 3D Modeling				
Feature Cam CNC Programming				
Polyworks Metrology & Reverse Engineering	Software			
Keyence VHX 7000 Stacking Microscope	2500X			
Faro Edge CMM and Blue light laser scanner	40"	40"	40"	0.0012" Accuracy
Aberlink CMM with PH10 scan probe +Camera	39"	59"	31"	2.4µm Accuracy
Boss Laser HP-3655 155W CO2	50"	30"	13"	Cuts wood and various plastics.
BAMBU printers X1E and X1 Carbon	10"	10"	10"	0.2mm nozzle
Desktop Metal Studio System+	9.4"	6"	6.1"	0.04mm resolution

Fabrication Equipment			
Machine	X	Y	Z
Grob Vertical Band Saw	18"	13"	—
Baykal 2104 CNC Press Brake	6'10"	—	8"
Hyd-Mech Horizontal Band Saw S-20	18"	15"	—
Lincoln Mig Welder Invertec V-350PRO	—	—	—
Lincoln Tig Welder Precision TIG275	—	—	—
Thermal Dynamcis Cutmaster 75 Plasma Torch	—	—	3/4
Vytek 6kw Fiber Laser 5 axis	5'	10'	18"
ABB IPG light weld 2000 XR Robotic laser welding			

Turning Equipment				
Machine	X-Over Ways	X-Over Carriage	Z Travel	Spindle RPM
Victor Conversational 1860DCL	13"	7"	40"	2,000
MSC Manual Lathes (2X)	18"	9"	60"	2,500
Okuma LB-3000 EX2 MY	18.5"	22.8"	39"	3,000
Harding Super Precision Manual Lathe	11"	6"	18"	3,000

Grinding Equipment			
Machine	X	Y	Z
Okamoto 6-18DX Wet Grinder	18"	6"	9"
K.O. LEE CO. B923A Drv Grinder	15"	4.5"	7"

Milling Equipment					
Machine	X	Y	Z	Spindle RPM	
Fryer MC 40 CNC Mill with 4th Axis	40"	20"	29"	10,000	
Fryer SX - 100 5 Axis CNC Mill	100"	35"	31"	18,000	
MSC Manual Mills (2X)	24"	11"	16"	4,800	
Sharp Manual Mill	31"	15"	20"	4,500	
Tormach PCNC 1100 CNC Mill	18"	9.5"	16"	5,000	
Sharp SV 2412 CNC Mill	24"	12"	18"	8,000	

EDM Equipment				
Machine	X	Y	Z	Angle
AGIE Mondo Star 50 EDM	33.8"	25.9"	12.4"	Full Rotation
Makino U6- Wire EDM	25.6"	17.7"	16.5"	W, V +/- 15°

Testing

Vibration Testing Systems	
LDS V875LS Shaker Table	8,000lb Capacity, 1 to 3,000 Hz in 3 axes, 76.2 mm stroke

MTS 810 Material Testing System	
Axial Actuator	+/- 110,000 lb Capacity and a 6 in. Stroke
Work Envelope	LWH = 30" X 30" X 83"
Hydraulic Capacity	2,000 PSI
Frame Capacity	110,000 lb
Data Acquisition	16 Bit, 5 kHz
Waveform Generation	32 bit digital