



*Aero Design specializes in prototype aircraft design, manufacturing, and test. We value seeing a product through all phases of its lifecycle, with engineering complementing in-house fabrication, assembly, closed loop with feedback from internal inspection and test. Aero Design provides our customers with fully-developed timely solutions.*

### **Design and Analysis**

- ☒ Structural design layout, detailed sizing and work instructions / documentation
- ☒ Solidworks Premium Computer Aided Design / Finite Element Methods
- ☒ Autodesk Fusion360/Inventor Computer Aided Manufacturing
- ☒ Polyworks Component inspection / Reverse engineering/ 3D Scanning

### **Manufacturing**

- ☒ Quality Assurance: Quality Management System certified to the standards of ISO 9001:2015 & AS9100D
- ☒ Sheet/Metal fabrication: CNC Mill and Lathe capabilities for quick part turnaround with in-house CAD, CAM and Inspection. CNC Laser/plasma, complemented by traditional sheet metal fabrication tools and skilled operators
- ☒ Rapid prototyping: Laser cut jigs, templates, gaskets along with 3D printed fixtures and test components
- ☒ Composite manufacturing: Prototype Wet layup, pre-preg, bonded assemblies. Small composite curing oven & In-place oven builds for larger volumes
- ☒ Finishing: Inflatable Paint booth, powder coating of small components and vendors to support other component specific processes
- ☒ Assembly: In-house A&P, bench stock of hardware, 4900ft<sup>2</sup> shop with 2400ft<sup>2</sup> hangar, runway access

### **Customers**

Stratolaunch LLC, The Spaceship Company, NASA, Zone 5 Technologies, AFRL, DZYNE Technologies, Perlan Project, Lockheed Martin



## Manufacturing Equipment:

Haas GM-2	145"x87.5"x22" CNC Mill (3 Axis)
Shopsabre IS612	145"x85"x12" CNC Router (3 Axis)
Haas UMC-500	24"x16"x16" CNC Mill (5-Axis)
Haas VF-2	30"x16"x20" CNC Mill (3 Axis)
Haas TL-1	16"x30" CNC Lathe 2.1" through bore
Hardinge HVL-H	11"x18" Manual Lathe
Laser Cutter	24"x24" 1200W Fiber (Sheet-metal cutting)
Laser Cutter	51"x71" 150W CO2 Laser (Wood/Acrylic cutting)
Laser Cutter	12"x24" 40W CO2 Laser (Wood/Acrylic cutting and engraving)
Laser Marking	30W MOPA Laser with Scan Head (Metal engraving)
Laser Marking	60W MOPA +30W Diode Laser with Scan Head (Metal engraving)
Bambulab H2D Pro	13.75" x 12.5" x 12.5" 3D printer PLA, Nylon 12, ABS
2x Markforged Onyx Pro	12.5"x 5.2"x 6.0" 3D printer Carbon filled Nylon (ONYX)
Lincoln Torchmate 4800	48"x96" 80amp CNC Plasma (cuts & marks up to 3/4" THK metal)
TECNA TE90 MKII	50kVa Spot Welder
Miller Dynasty 300	300amp SquareWave TIG Welder
Miller Dynasty 200DX	200amp SquareWave TIG Welder
Miller Syncrowave 250DX	250amp SquareWave TIG Welder
Millermatic 252	MIG Welder
Titan 25T	25 Ton 36" wide CNC press brake
Tennsmith HBU48-16	61" Box and Pan Brake
Pexto Stomp Shear	36" Stomp Shear
Rotex 18A	0.0625" – 2" 18 station turret punch
DoALL 2013-V	20"x13" Vertical Bandsaw
Grizzly G0561	7"x12" Horizontal Bandsaw
Despatch	18"x18"x18" Oven
Romer Arm 8525	7-Axis Ultra-High Accuracy CMM Arm with Laser Scanner
Hexagon Leica AT960 MR	Laser Tracker with 65' Radial Range
AP21 Positioner	Leica Absolute Positioner for Laser scanner with AT960 Laser Tracker
AS1, AS1XL	High resolution and large volume laser scanners
Brown & Sharpe Xcel 765	Coordinate Measuring Machine
Standridge Granite	48"x72" Grade A Granite Table
Standridge Granite	36"x48" Grade A Granite Table
Starrett 0"-72"	Height Gauges
Metrology Tools	Mitutoyo Calipers, Micrometers, depth gauges, Gauge blocks, pin & ring Gauges, etc.
Extensive stock of aircraft hardware	AN, MS, NAS, HiLoc, Clickbond, AMP and other specialty aircraft hardware