

## COLLABORATIVE ENGINEERING SERVICES

AQST-USA offers an extensive portfolio of design engineering services for the aviation, space, aerospace, and energy industry, among others. From specialized custom solutions for existent components, parts, and equipment to more sophisticated integrated projects focusing on research and development of rocket-space-technologies, autonomous vehicles, spacecraft, auxiliary equipment, power, and propulsion systems, AQST can support your ideas and projects at affordable costs.

## **Specialized Engineering Services:**

AQST-USA provides engineering services for new technology development, improvements to existent technologies, simulation, designs and consulting services for:

- Autonomously Flying Winged Aircrafts
- Unmanned Rocket Aircrafts
- Sounding Rockets
- Launch Vehicles
- Electric Space Propulsion Systems
- Chemical Space Propulsion Systems
- Electro-Mechanical Separation Systems
- Spacecraft (orbital, interplanetary, planetary landers, multi-use)

## Engineering Services at Component Level:

- CAD-based Design of Metallic, Plastic, Composite and Ceramic Structures
- FEM-based Structural Analysis of Metallic, Plastic, Composite and Ceramic Structures
- FEM-based Thermal Analysis of Metallic, Plastic, Composite and Ceramic Structures
- Machining of Metallic, Plastic and Ceramic Structures
- 3D Printing of Metallic, Plastic, Graphene and Ceramic Structures
- Manufacturing of Composite Structures
- Design and Manufacturing of Printed Circuit Boards
- Soldering of Space Qualified EEE Parts
- Programming of Customized Micro-Controller Solutions

## Software Skills:

- Catia, SolidWorks, Solid Edge, AutoCad
- ABAQUS, Solid Works Flwo Simulation, ANSYS Maxwell
- Eagle
- Assembler, C/C++, Pascal
- Maxwell Electromagnetic
- Micro-Cap
- AVRStudio
- Python, C, Bash-Script
- Linux, Windows
- MS Office, MS Project, MS Visio
- MATLAB, Octave, Maxima, Geogebra

- Simulink, LabVIEW
- gEDA
- Apache Webserver
- Labview
- QGroundControl
- Inkscape, Gimp, Xfig
- Savi, Gpredict
- Delphi, SQL
- Photoshop
- 3ds Max