TAAL TECH
Accelerate Your Success

AIRCRAFT TOOLING DESIGN

About Our Client

The client is a renowned North American company with a reputation for excellence in the corporate aviation business. The client has expertise in the development of world-class products for the Aerospace Industry, specifically in aircraft interior inserts, tooling, monuments, and seating for all classes and sizes of Aircraft OEMs such as Boeing, Airbus, Gulfstream, among others. With a wealth of experience and a deep understanding of the aviation industry, the client has established itself as a leading player in the market, catering to the needs of aviation giants across the world.

Scope / Challenge

The project warranted the development of a comprehensive concept to the detailed design of the tooling while adhering to the customer's provided layouts, physical tools, standard process, and specifications. The design process involved the collection of data from the existing parts to develop tools that would minimize the cost of tooling and reduce the assembly time. The project necessitated the deployment of highly skilled engineers with expertise in CAD/CAM tools, an understanding of materials science, process technology, and analysis & simulation. The team also had to design and validate the tooling through simulations and testing, ensuring that the design met the required safety and quality standards.

Solution

Embarking on this re-engineering project, the TAAL Tech team utilized various tools and technologies to ensure efficient and accurate design. The team used CATIA V5, a leading 3D modeling software, to develop the concept design for the air stairs tooling. The team also utilized the client's existing libraries and standards to ensure that the design met all necessary guidelines.

To create the individual part manufacturing tools, sub-assembly tools, and assembly tools, the team utilized various processes, including detailing, manufacturing drawings creation, and process and assembly documentation. The team also conducted thorough self, peer, and final quality control checks to ensure that the final deliverables were of the highest quality.

Overall, the use of advanced tools and technology helped the TAAL Tech team to complete the re-engineering project efficiently and accurately, resulting in a high-quality design that met all customer requirements.

Results Delivered

The rapid completion of the project by the TAAL Tech team was due to our efficient deployment and management of resources, intensive training, flexibility, and extended work hours, all of which were in response to the customer's tight deadline. The team's extensive experience and expertise enabled them to meet the exacting demands of the project and to deliver a design that fully satisfied the client's requirements. As a result of their successful collaboration, the client was able to minimize their costs and reduce their turnaround time, thus gaining a significant competitive advantage in the Aerospace Industry.

About TAAL Tech

TAAL Tech is a niche Engineering and Technology solutions provider serving global corporations in their pursuit for faster innovation. Our vision is to be a leader in providing innovative, high value engineering & technology services to global corporations. Meet our team and learn more about us.