

Avionics and Electrical Engineering

You require proven, expert solutions.
Rely on our versatile designs for all your requirements.



Together
ahead. **RUAG**

Small but perfect

When your only requirement is to install and connect a simple piece of avionics, our specialists can design an uncomplicated solution, drawing on the hundreds of previous small and large modifications we have developed and certified.

For example, we developed an STC to install a small, state of the art, navigation and communication device for small rotorcraft. In this case we were able to utilise our significant experience and resources to develop the modification in a simplified manner.



Large and complex

On the day you need a large and complex modification, RUAG's enthusiastic team of highly experienced and qualified avionics and electrical engineers will rise to the challenge. Using cutting edge engineering tools we can help you realise your requirements.

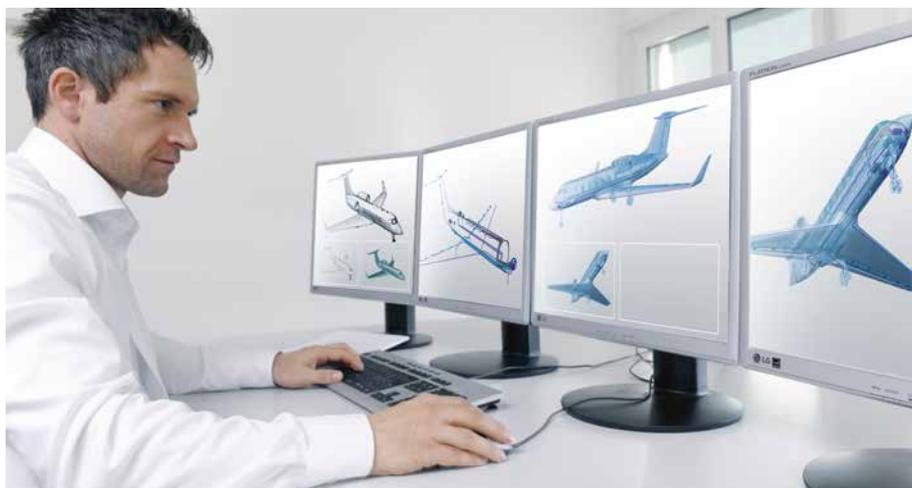
Our highly skilled design engineers use the latest CAD systems to design clean solutions for highly complex modifications. In these projects, management of the various configurations is paramount to safety and part of our daily business.



Never been done before

On the occasion you are looking for an organisation that has the capability to develop something that no one else has done, look no further. We can take a rough concept through feasibility study and all the way to certification, working with universities and think tanks to consider not only what is around the corner, but also the long term future.

We haven't developed a time machine (yet), but we are involved in many research and development programs where our engineering expertise bring developments in the future of aviation to life.



Safe and sound

Safety is a big concern. Our EASA part 21J approved design organisation is full of experts able to advise you about the current and planned regulations designed to enhance safety in the air and to create elegant solutions for you.

We take pride in providing designs to enhance safety and to be fully informed about future mandates such as P-RNAV, APV/LPV, ADSB, EHS, A-RNP, TAWS, TCAS. Our continued effort to be involved in the development of future technology, such as Detect and Avoid, Obstacle Detection systems and CPDLC, maintains our position at the forefront of technology.



Plug and play

Your cabin needs management, your in-flight needs entertainment. Our team works with many providers of CMS and IFE systems to keep up to date on the latest technology available to enhance your experience. Bringing those solutions into certified modification packages is one of our specialties.

We can enable full wireless control of cabin functions from personal electronic devices, from mood lighting and electro chromatic window dimming through to temperature, humidity and of course the in-flight entertainment system.



Quality matters

Your CAMO requires clear and complete data. Our comprehensive processes and configuration management, used throughout our design process, ensures that we can provide you with the quality of documentation needed for continued airworthiness in the most efficient manner.

Clear and unambiguous instructions for continued airworthiness enable the follow-on life cycle maintenance to be safely defined and tracked by your CAMO. Our technical data packages help ensure the quality and safety of your aircraft.



Fighting obsolescence

Avoid fleet groundings. We work with avionics equipment manufacturers to target units that need to be replaced due to obsolescence caused by high failure rates, expensive or long lead time repairs, parts unavailability, or simply being overridden by mandates from the authorities.

Over time, operational costs increase and availability decreases. There comes a time when a change is needed, but there are more cost effective ways than replacing your aircraft completely. Let our knowledgeable staff assist you in defining prudent solutions.



Super Puma AS332 Pre-Upgrade



Super Puma AS332 Post-Upgrade

Customer satisfaction

Small or large, simple or complex – this is what we do every day. Avionics and electrical engineering is our passion and we are eager for you to benefit from our experience. We strive to couple proven and innovative technology with your very real requirements.

Your success is important and your opinion matters.



PC-12 Avionics Upgrade

“RUAG has provided an excellent solution for our PC-12 aircraft, completely satisfying the requirements of pilots and operator alike. Keeping the original EFIS, we upgraded to the latest Garmin equipment, the dual GTN750 with TAS and remote transponder, which is proving to be an excellent solution. An additional advantage is that the aircraft is now certified for main RNAV approaches. The touch screen functions are very intuitive and improve efficiency. The two large screens increase situational awareness. The ability to import user waypoints, using an SD card, are a huge added value for our operations and very easy to use. The Autopilot and EFIS is also well integrated with the new avionics. We have been flying with this aircraft for 20 months, completed hundreds of aerial survey missions representing more than 1000 hours of flight.”

Samy Dadoucha, Accountable Manager, Swiss Flight Services SA