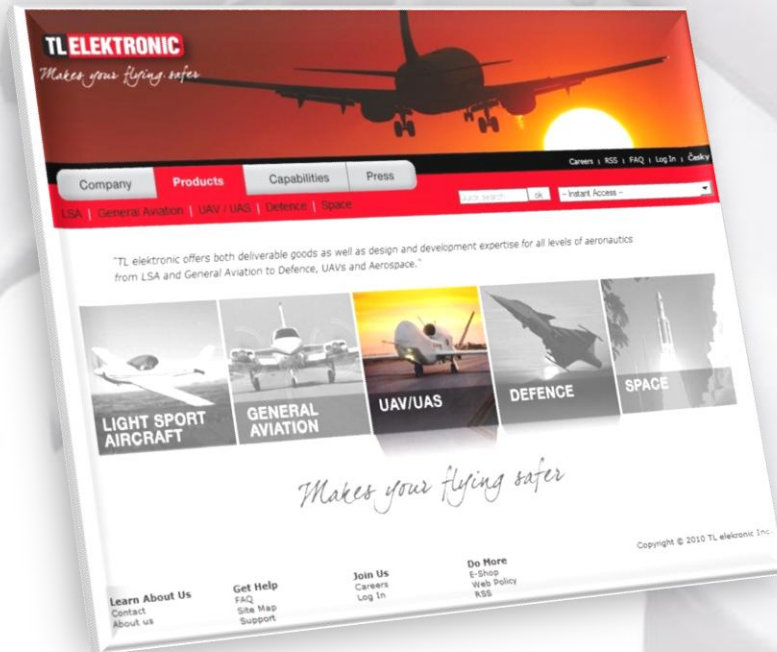


# TL elektronik Inc.

**Makes your Flying Safer!**



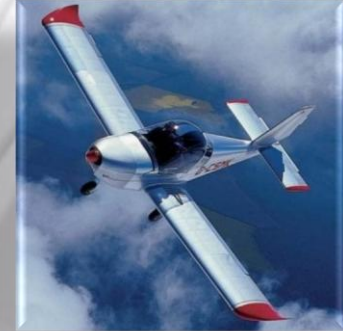
**Airport, Building 125  
50341, Hradec Králové  
Czech Republic**

**Tel: +420 49 548 23 92-3  
Fax: +420 49 548 23 94  
e-mail: [info@tl-elektronic.com](mailto:info@tl-elektronic.com)**

## Development & Production of Aircraft Instruments

### Company overview:

- *Founded in 1995*
- *Joint-stock company with basic capital USD 1.5 million*
- *One of the world leaders in the development and manufacturing of aerospace instruments and onboard aircraft systems*
- *Full company certification and approval (ISO9001, EASA Part 21)*
- *Approved within scope of European Space Agency (ESA) programmes (ESA SME, EMITS and ESID)*
  - *State of the Art Expertise, using the most advanced technologies*
  - *Own development of sophisticated instruments*
  - *During its existence developed more than 40 aircraft products*
  - *At present 25 active products*
  - *Sells in more than 30 countries around the world*





## Certificates & Approvals:

### **Approval for production of general aviation products according to Part 21**

*(Granted by Civil Aviation Authority Czech Republic - CAA)*

*Number of approval: CZ.21G.0046*

### **Approval for alternative procedures of design of general aviation products according to Part 21**

*(Granted by European Aviation Safety Agency - EASA)*

*Number of approval: AP168*

### **Approval for verifying & testing general aviation products**

*(Granted by Civil Aviation Authority Czech Republic - CAA)*

*Number of approval: L-3-076*

### **Approval for production of military aviation products**

*(Granted by Ministry of Defence Czech Republic - OVL MO)*

*Number of approval: MAA075*

### **Quality management certificate ISO9001:2001**

*(Granted by Bureau Veritas Certification - BVQI)*

*Number of certificate: 6001491*

### **Approval to deal with confidential information**

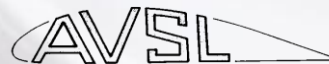
*(Granted by National Safety Authority - NBU)*

*Number of certificate: 000480*



## Membership:

- *Member of Unmanned Systems Manufacturers Association of the Czech Republic*
- *Member of the Sub-committee for Science, Research, Aviation and Space of the Chamber of Deputies in the Czech Republic*



## ***Development & Production of Aircraft Instruments***

---

### **Cooperation:**

- ***Honeywell***
- ***Bombardier Rotax***
- ***European Space Agency***
- ***European Aeronautic Defence and Space (EADS)***
- ***BAE Systems***
- ***NLR***
- ***Thales***
- ***Czech Air Force***
- ***Czech Aerospace Research Centre***
- ***Czech Technical University in Prague***
- ***Czech Aeronautical Research and Test Institute***
- ***Evektor – Aerotechnik***
- ***Extra Aircraft Industries***
- ***Red Bull Air Race Team***

**Honeywell****BAE SYSTEMS****EXTRA****THALES**



## Products:

- *Wide spectrum of products enabling us to measure:*

### **General Expertise (Quantity measurement)**

• *Acceleration "g", Attitude, Angular velocity, Air Speed, Vertical speed, Temperature, Barometric pressure, Voltage & Current, Fuel Management, Strain measuring*

### **Sophisticated Expertise**

• *Fatiguemeters and methodology, Structural life monitoring systems and methodology, Flutter test equipment and methodology*

### **Developed Expertise**

• *Voice warning systems, Autopilot systems, Radio altimeter, Navigation systems, Wireless data communication, Flight position logger*

- *State of the art technologies*
- *100% customer support (24/7)*
- *World-wide distribution network*
- *High reliability*



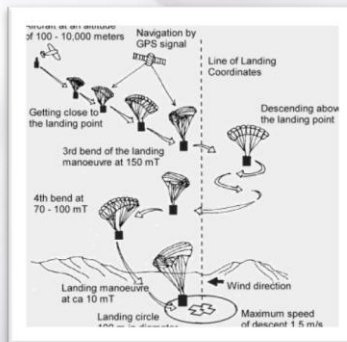
## Science & Research

- *Own design organization approved by EASA Part 21*
- *Development of SW & HW according to aerospace regulations*
- *Testing facility for verification and testing prototypes according to RTCA-DO160E aerospace regulations*

### Autonomous parachute supply system

**AmPad  
TL-6424\_CDD**

- *Joint Precision Airdrop System*
- *Humanitarian or Military field*
- *Soft landing with flare manoeuvre*
- *Landing accuracy - less than 50m deviation; drop altitude 10km*
- *Payload weight up to 1000 kg*



## Structural Life Monitoring Unit TL-5824



*Nominated for the most prestigious Czech national award:*

**“The most significant new technology or product developed in Czech Republic in the year 2004.”**

*Project supported by Ministry of Trade and Commerce of Czech Republic.*





# Company Orientation



## Military Aviation



## Space Technology



## General Aviation





*Future Vision*

**Company Orientation – *Military Aviation***



- *Cooperation with **Military Aircraft Industry** (Domestic & Foreign) (Project BAT – Avionics for Reconnaissance Air Unit)*
- ***UAS (Unmanned Aerial Systems)***
  - *Avionics (Autopilot, etc.)*
  - *DSA (Detect, Sense and Avoid) Systems*
  - *C2 (Command & Control) Systems*
  - *Hydrogen Power Supply & Drive Motor*

- *Establishment of **The Unmanned Systems Manufacturers Association of CZ** (catch up uncontrolled evolution in branch and set to harmony technical and legislative framework)*

*Autonomous parachute supply system*

**Ambition**



to participate at

**PATCAD**

Precision Airdrop Technology  
Conference & Demonstration



Source: SPADES – Dutch Space



*Future Vision*

**Company Orientation – General Aviation**



- *Well positioned in the Czech Republic as a manufacturer leader*
- *Strong and well-balanced cooperation with Czech industry, academia and SMEs*
- *Advantage of own proven designs in aircraft systems*
- *Fully automated verifying & testing of our products*



**Ambition**



to supply our products on board of these airplanes :  
**AIRBUS, BOEING, CESSNA**





## Company Orientation – *Space (ESA Projects)*



- **Success in aviation field, base for space projects**
- **Implemented *Quality Management Systems* ISO 9001:2001 and Part 21**



**Aerospace regulations**

**similar regulations to ECSS**



**As from 2009**

- **participation in *ESA projects***

- **use of own expertise - products based on HW and SW**
- **products that can move boundaries of human knowledge**
- **offer top products to potential eminent partners**



**Near future**

- **New Research & Production Facility**
  - **Clean room (cleanliness standard class 100000)**
  - **Automated assembling technology**

# Questions?



## **TL elektronik Inc.**

**Airport, Building 125  
50341, Hradec Králové  
Czech Republic**

**Tel: +420 49 548 23 92-3  
Fax: +420 49 548 23 94  
e-mail: [info@tl-elektronic.com](mailto:info@tl-elektronic.com)**

