

# END-TO-END SERVICES FOR ROBOTICS AND DRONE SOLUTIONS

**ELECTRONICS DEVELOPMENT** 

**TESTING & APPROVALS** 

ELECTRONICS MANUFACTURING SERVICES









Expertise in rugged electronics design and customized firmware and software development. Proximity to compliance, certification, and manufacturing services at competitive prices for the EU market.

Rapid prototyping and iterative development

Integration with cuttingedge technologies Flexible and collaborative team with staff in various locations

DEV support for any stage from prototyping to development NRE cost distribution for startups

Innovation-infused, scalable and flexible solutions Collaborative long-term partnership approach

Strategic guidance and business insights

# FLEXIBLE COOPERATION MODEL



Fixed team





Time & material

## **DEVELOPMENT** EXPERTISE

Development and adoption of proprietary software for the robotics and aerospace frameworks

Building SW and HW platforms for the future product

Communication protocols selection, implementation, and testing

Machine Learning and Artificial Intelligence

Worldwide approval readiness for mass-scale production

Integration of the numerical models and system business logic

Smart sensors fusion

Functional and system safety

Energy management

































# **INDUSTRIES**

- Agriculture
- Automation
- Defense & Security
- Drone Technology
- Energy
- Health and Welfare
- Manufacturing
- Robotics

EKTOS knows how to develop for production and can therefore develop a real product that can be produced and that can function reliably in the field

- David Bourgeois, CEO, CyanView

# **TRS © EKTOS**

**EKTOS Testing & Reliability Services** 

Ensure user safety and security through precision and testing and seamless approval. Get guidance and support for navigating international standards and regulations for global market access.

Accredited and non-accredited testing

Two wellequipped DANAKauthorized typetest labs

Experienced and flexible test engineers

Applicationspecific approvals Obtain approvals for 80+ countries

Short lead times and competitive prices

### **TESTING SERVICES**

# Environmental and HALT testing

TRS assesses product durability and performance under varying conditions, including temperature, humidity, and vibration/shock

#### Safety testing

Compliance with international electrical safety standards for industrial and consumer application such as:

EN 60335-1 - Household and similar electrical appliances -Safety – Part 1: General requirements

EN 62368-1 - Audio/video, information and communication technology equipment - Pat 1: Safety requirements EN 61010-1 - Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements

#### **EMC/EMI testing**

- Radiated emissions and immunity
- Conducted emissions and immunity
- Fast transients and surges
- Electrostatic discharge (ESD)
- Mains harmonics, voltage dips, and interruptions

For example:

EN 61326 Laboratory/ Measurement standards

EN 55032/55035 Multimedia

Generic standards: EN 61000-6-1 EN 61000-6-2 EN 61000-6-3 EN 61000-6-4

# Functional testing

Reliable and safe functionality of robotics, automation, and drone solutions in real-world scenarios based on the customer's specifications and requirements

#### Radio testing

DANAK-accredited for radio testing in the EU, USA, and Canada for ensuring proper functionality of robotic devices or systems with radio modules

- Immunity
- Emissions

Remote control, data transmission, and coordination between multiple robots













Support for notified bodies and third-party certification agency approvals

















TESTS &
APPROVALS
COMPLETED
FOR CUSTOMERS













At EKTOS the process is simple. I think they are a bit more flexible than their competitors, so I have absolutely nothing to complain about.

- Ulrik Lundberg, Managing Director, Neat Electronics



TECHTO Electronics utilizes state-of-the-art manufacturing facilities and processes to produce high-quality electronic assemblies and components in European quality at Far-East prices

#### **ELECTRONICS MANUFACTURING SERVICE**





- Agile manufacturing
- ✓ ISO 9001 and ISO 13485 certifications
- Design optimization with EKTOS
- Efficient sourcing and supply chain
- ✓ In-line and end-of-line testing
- ✓ Short lead time

- Experienced manufacturing team
- ✓ Collaborative partnership approach
- Engineering support
- ✓ BOM cost optimization
- ✓ Lifecycle support and after-sales services
- ✓ Professional box-build

# AREAS OF SPECIALIZATION

Efficient NPI & sourcing

IPC-A-610 class 1-3 PCBA assembly

Multi-level quality control

Cable / Harness mounting

ESD-compliant box build

**Functional testing** 

PTS (Product Test System)

Professional repair, incl. BGA rework

PCBA conformal coating/sealing

Retail packaging

High-efficiency in-line Yamaha SMT machines

Professional manual and semi-automatic THD soldering

# TECHNICAL CAPABILITIES

Passive components down to 0201

Specialized product assembly line

# **SUPPLY CHAIN MANAGEMENT**AND COMPONENT SOURCING

TECHTO provides robust supply chain management solutions to mitigate risks associated with component shortages, obsolescence, and lead time fluctuations

Proactive inventory management

Strategic sourcing partnerships

Alternative component recommendations

Cost-efficiency and production continuity

With our cooperation with EKTOS Development and TECHTO Electronics, our device hit the market within a short amount of time. We are able to maintain product cost on a competitive level and enjoy support for manufacturing over the years.

- Christian Mortensen, Founder & Owner, AirWallet

# **GET THE COMPLETE SOLUTION**

FOR A HASSLE-FREE JOURNEY



# **CONTACT US**

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