



A Full-Service Electronics Manufacturer

– From the deep sea to outer space





Norautron, a company in EMBRON Group, is a full-service electronics manufacturer established in 1989

As a service provider with a long track record, active in the market since 1986, we see that our core processes and challenges as an EMS provider are the same regardless of market sector. What's more, delivering tailored results for specific segments often gives us positive spin offs that can be exploited by customers in other sectors and markets. Nevertheless, every sector has its own demands which must be acknowledged and addressed. Having the branch-specific employee skills and knowledge, tight

contact with the distribution channels and the right manufacturing expertise are all crucial in order to both understand the customer and to serve them with the right customer service capabilities. Norautron continuously strive to develop our capabilities and to improve the productivity. Combined with our sector-specific knowledge this leads to cost reductions which is in the common interest of all our customers!

Norautron Norway AS

ESTABLISHED:

1989 Horten, Norway

TOTAL BUILD UP:

11000m²

PRODUCTION:

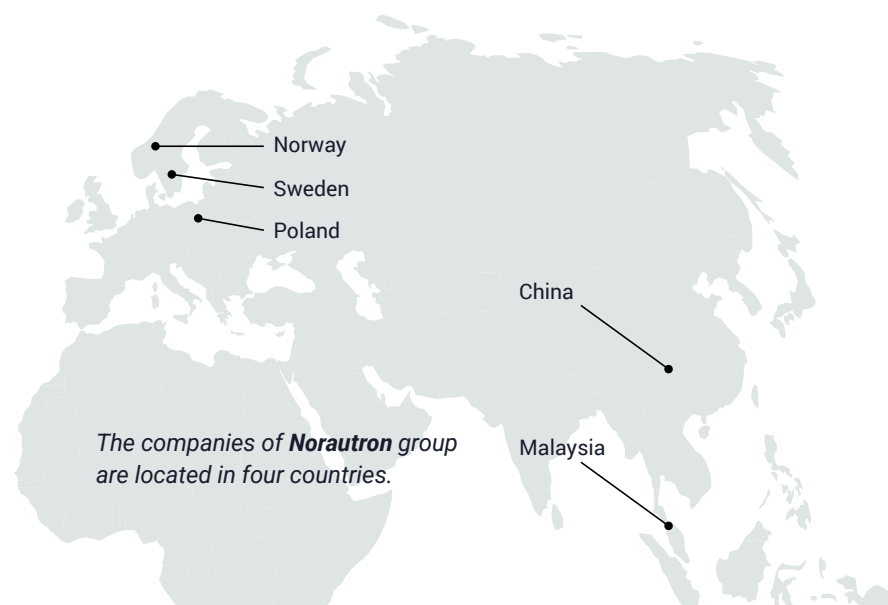
7000m² + 2500m²

HEADCOUNT:

350 employees

CERTIFICATION:

**ISO9001, ISO14001, ISO/IEC 27001,
AQAP 2120, IPC 001 CI 3**





The best part about visiting Noratron is their amazing culture, the wonderful people who work there and how they put their soul into everything they do. We have a lot to thank Noratron for, they've had faith in us since day one and we would not have been where we are today without them.

– Jonas Helmikstøl,
previous CEO, Easee AS

We can add to your brilliance

We offer flexible and cost-effective services, that help improve our customer's competitive edge. Noratron provides services ranging from PCB Design, Rapid prototyping, Test development, Customized assembly lines, Sourcing & Procurement, Logistics & Distribution, Manufacturing of both Electromechanics and Mechanics and Product Life Cycle Management. Noratron operates as a trusted partner for several global players. With a dynamic development of Noratron we have been able to have a continuous expand of production and service infrastructure with the latest machinery and equipment.

Quality

Noratron provides Extended Electronics Manufacturing Services, delivering the right quality at the right time. Our continuous improvement of processes and solutions puts us at the forefront of the market

– a flexible organization with the right capabilities. Our Management and Quality system is certified according to ISO 9001 and ISO 14000 standards.

The markets we serve:



CONNECTIVITY
COMPUTING



DEFENCE
AEROSPACE



ELECTRICITY
ENERGY



HEALTHCARE



INDUSTRY



OCEAN
TECHNOLOGY

Certified According To:

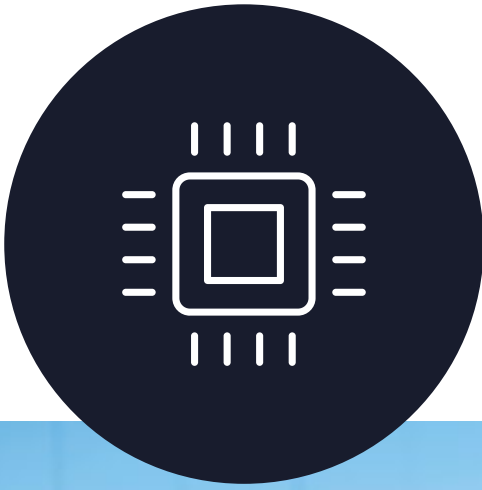
- ISO9001:2015
- ISO14001:2015
- ISO/IEC 27001
- AQAP-2110 EDITION D, VERSION 1

Compliant To:

- AS 9100
- ISO45001

Highly skilled and focused on sustainable production of:

- ELECTRONICS
- ELECTROMECHANICS
- MECHANICS
- ADVANCED BOX BUILDS



NPI & Prototyping



New Product Introduction & Prototyping

Making the difference

Norautron understands the important role that NPI (New Product Introduction) play in optimizing new products and time to market. With our experience, we can make the difference by helping customers launch complex products, and can provide substantial engineering analysis, technology and manufacturing optimization to achieve the customers goals.

We can provide our own NPI team with extensive experience within documentation, design, quick turn prototyping, product verification and transfer to series production.

Our expertise

- Dedicated project managers
- Highly skilled NPI technicians
- Experienced process engineers
- Dedicated SMD-line and operators for prototypes only
- Quick response and delivery services
- Standard – risk on running analysis (FMEA)
- Preliminary test capabilities
- Design for manufacturing analysis (DFM)
- Design for testability analysis (DFT)
- Extensive prototype report services, including total cost analysis.
- Rapid 3D print services (SLA, ABS)
- First-cut electro mechanical assembly
- High level and complex box build
- In house NPI facility complying with all preferred IPC industry standards

Product- / & Test Development

Through our Test Development department, we offer the service of design and development of Automatic Test Equipment (ATE). This service range defines the test strategy through fully automated test equipment for mass production to test equipment for aftermarket services and repair.

Norautron can collect test data from sites around the world. This enables us to keep our production lines running smoothly and to give our customers feedback on the products behaviour over time.

In ATE design we use both off the shelf products and custom-made hardware/software.

Through our global presence as an international EMS provider, we can source the most cost-effective parts for test needs. We have in house design and development of test fixtures, HW, SW and documentation. The Test Development department's proximity to the production lines enables us to make the correct decisions for ATE design.

- JTAG – Developed JTAG programs for aviation design boards.
- LabVIEW & LabWindows – Certified Norwegian Partner by National Instruments
- Test Stand/WATS – test systems in combination using LabVIEW and WATS database.
- ZUKEN CADSTAR – Norautron's standard tool for Schematics and PCB layout.
- Needle fixture – Produce needle fixture tests systems.





Industrialization



The right production setup throughout the product lifecycle

Norautron provides our customers with a single point of contact. We are set to handle everything from low volume complex builds to several hundred thousand box builds a year. Understanding the needs at all volumes, makes Norautron the right partner.

Norautron provides best practice on the many aspects of manufacturing and scaling up production. Our role is to coordinate industrialization activities (products and processes) during the project phase and to manage the deployment of tools and manufacturing processes. By creating synergies between product development and process development, we can reduce costs and time-to-market.

Our expertise

Manufacturing

- Robust manufacturing processes
- Compliance to IPC-standards
- Custom assembly lines where applicable
- Automation when possible

Sourcing

- Responsible global and local sourcing
- Supplier Qualification and Management
- Component analysis and Life Cycle Management
- Category Management
- Market trend analysis
- Supply Chain optimization

Procurement

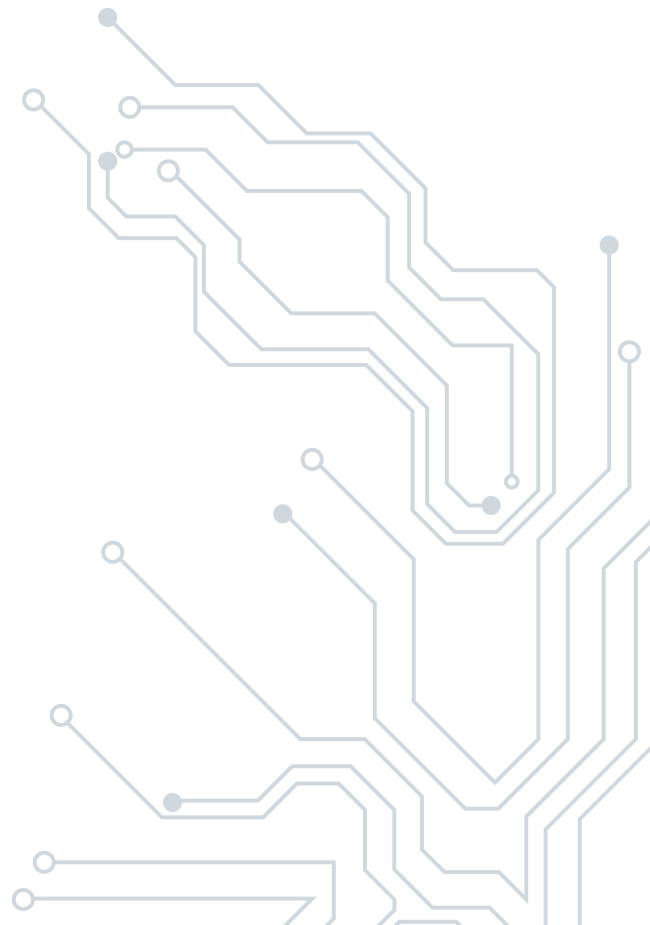
- Order management & expediting
- Competitive lead times of delivery
- Appropriate pack size/MOQ
- Continuous supplier performance tracking
- Obsolescence management
- Change management
- ITAR, 3G, IPC, MS level

Logistics

- Logistic Management from Suppliers to Customers
- Global IT-platform
- Obsolescence Management
- Change Management
- Supplier Performance tracking
- Inspection and Anti-counterfeit procedures

Warehouse

- Incoming inspections
- Anti-counterfeit, inspection and testing procedures
- Storage according to given specifications
- Customer specified services





Manufacturing & Assembly



Professional at the core

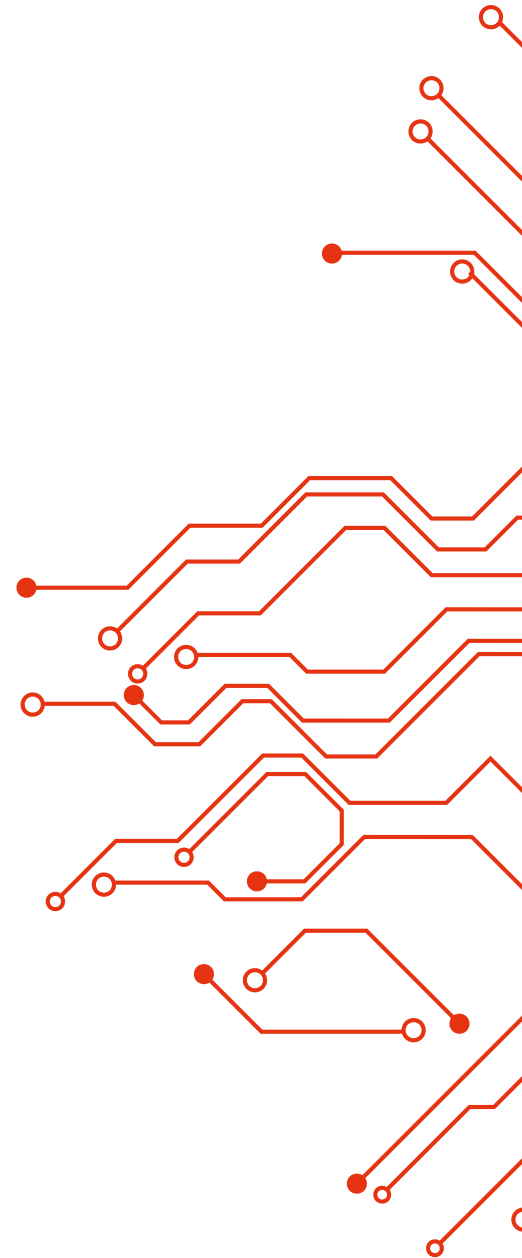
With state-of-the-art equipment and a highly professional team, we manufacture high quality electronics and electro-mechanical products. We strive to make a difference for our customers, offering our expertise in complex production processes.

Norautron`s global manufacturing services are continually expanding, mainly due to our highly skilled and dedicated employees. With a focus on exploiting this global expertise and the offering of the latest within process technology Norautron is a solid and effective manufacturing partner for our customers, and we have built a reputation as a partner that can be trusted to build and test high-end electronic products.

With our long experience of production for various markets, Norautron has the necessary credentials to build products that are required to function also in harsh and hostile environments. Our close cooperation between our mechanical and electromechanical production sites ensures cost-efficiency and high-quality products, and a reduced time to market.

Our expertise

- Robust manufacturing processes
- Compliance to IPC-standards
- Custom assembly lines where applicable
- Automation when possible
- Electronics, Electromechanics & Mechanical
- Lean production
- High level experience with complex HLA
- SMT lines with multiple AOI & SPI systems
- Dedicated repair & upgrade team
- Online WIP tracking & process monitoring
- Traceability at component level
- Extensive IPC & process training program
- Laser marking of PCBs
- X-ray inspection & analyses
- Paperless documentation & ECO handling





Product Life Cycle Management



Understanding the lifetime of the product

Norautron provides true Product Life Cycle Management ensuring the right quality, OTD and price, throughout the lifetime of the product.

With fully integrated Human Capital Management (HCM), Quality Management Systems (QMS), Manufacturing Execution System (MES) and Enterprise Resource Planning (ERP), we serve our customers with a range of services, all underpinned by supply chain management, quality assurance, program management and improvement programs.

After Sales services is an increasing part of our business. It's our goal to ensure that all products meet or surpass our customers' expectations, therefore we are constantly seeking to provide the best services needed for our customer. Building long-time relationships based on a common understanding of what a Life Cycle Management program includes, is a key factor to our success. Due to our in-depth understanding and long experience of building complex electronic and electromechanical products, we have built up the key competence to build, analyse and develop products and processes.

Our expertise

Optimization

- Providing experience in Product Life Cycle Management, ensuring the right quality and price throughout the lifetime of the product.

Cost Reduction

- Pursuing cost reduction without compromising quality. From cradle to grave, products are validated through continuous improvement programs from a total cost of ownership perspective.

Manufacturing Transfer

- Experience seamless international manufacturing and supply chain competence transfer. Risk- and quality management are key factors in ensuring continuity of supply.

Our promise

We always strive to become better in everything we do, all the way from efficiency and quality to the way we influence the local society and the environment.

As a major player in the electronics industry, we take our responsibility seriously. We are constantly making conscious choices to reduce our environmental footprint, and will do what we can to support our customers on their journey towards a more sustainable future.



Why Norautron

ABILITY

WE SHALL HAVE THE RESOURCES REQUIRED

- Employees with the right skills
- Top quality equipment and systems
- Sufficient capacity

DEDICATION

WE SHALL BE TOTALLY DEDICATED TO THE TASK

- Customer focused
- Satisfied employees in a flexible organization
- Safety through HSE

EFFICIENCY

WE SHALL BE COST-EFFICIENT

- Do more with less
- Continuous improvement through Lean
- Benefit from our global footprint

QUALITY

QUALITY SHALL BE OUR TOP PRIORITY

- Zero defects goal
- Standardization through IPC
- Focus on risk reduction



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