

Electrical Engineering

Engineering excellence in aviation, space, maritime and on the ground!



»It is literally true that you can succeed best and quickest by helping others to succeed.«

Napoleon Hill



Electrical engineering services are a fundamental part of AES' business.

The AES Electrical Engineering Competency Centre has years of experience developing electrical systems, test equipment, wire harnesses, service bulletins and more. We provide a wide range of interconnected services and offer these services out of our headquarters next to the Bremen Airport. AES meets the high demands of the aerospace industry, both in long-term sustainability and ongoing devel-

opment. In addition to aerospace, customers from the space, maritime and ground system industries trust us with their electrical engineering needs. This makes AES unique.

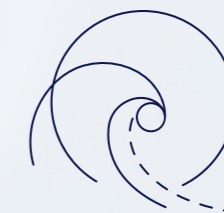
Challenge us with your electrical engineering requirements! We would be pleased to design the perfect solution for you!



Aviation



Space



Maritime



Ground Systems

...the sky is not the limit!




Aviation

We have the knowledge and skills to engineer complete electrical systems for aircraft and monuments. Specifying electrical interface installations for aircraft galleys and providing electrical engineering for wire harnesses are also part of our business. Our extensive experience, acquired through our work on numerous aircraft projects and system layouts since 1997, gives you the confidence of knowing, we will find the best possible solution for your unique requirements. Our customers include aircraft and monument manufacturers as well as completion centres.

Some of our electrical engineering services include:

- + Feasibility Studies
- + Specification
- + System Analysis
- + Configuration Management
- + System Definition
- + System Integration
- + Engineering in 2D and 3D
- + Engineering Support
- + Production Support
- + Installation Support (on-site)
- + In-Service Support [Service Bulletin]
- + Customer Service



Exploring the final frontier
and reaching for
the stars!



Space

We extended our years of experience in electrical system integration up into space in 2010. Going even further, we have gathered a considerable amount of expertise in the area of satellite harness design and integration. This knowledge is based on ECSS, the European Cooperation for Space Standardization. AES also liaises with the University of Bremen and several other universities and research institutions in the context of research and development. One example is a space research project titled “Aluminium Harnesses for Satellites” (AlSa). The aim of this project was to utilise aluminium cables as power supply lines in satellites.



Setting sail with confidence!



Maritime

The elements may differ, but the challenges are familiar concerning the security, performance, reliability, and quality requirements for the shipping industry. In recent years, our engineering services for the maritime sector have included the following:

- + Designing system and installation plans for emergency escape route lighting (Low Location Lighting) for cruise ships and yachts
- + Drafting installation plans for cruise ships and yachts
- + Wiring
- + One-line diagrams
- + Connecting lighting systems to power supply
- + Connecting lighting systems to the corresponding sub-distribution unit

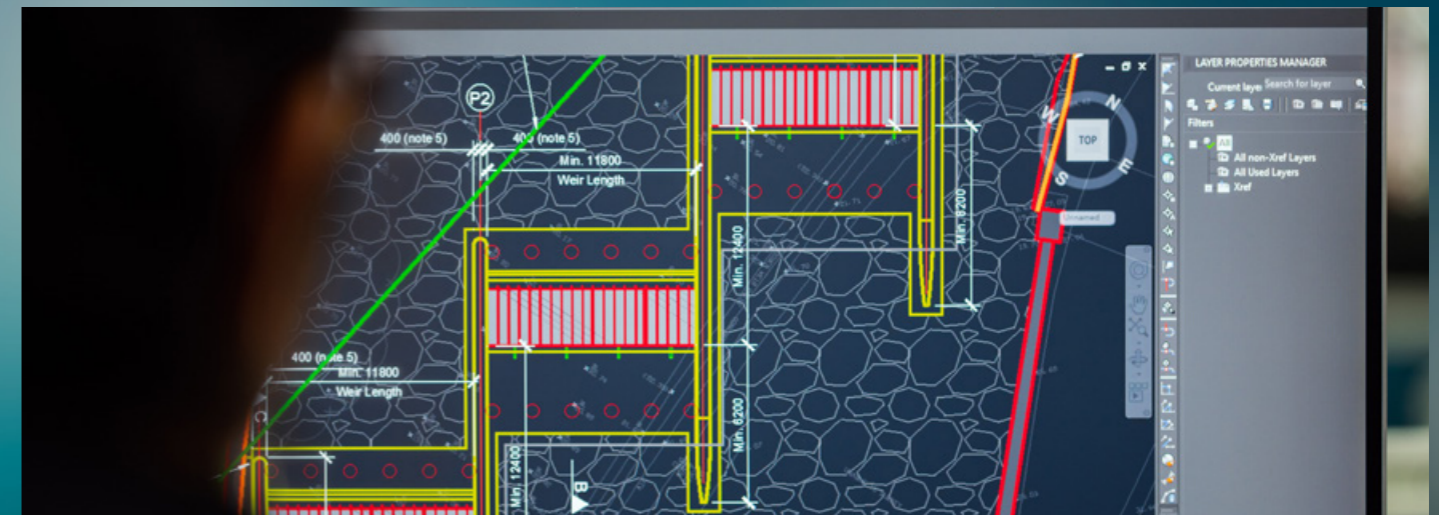


We walk the line!

On the ground ...

We design plans and prepare documentation for residential copper line internet connections for Germany's largest telecommunications company. We also produced the documentation for FTTH connections (fibreglass).

We designed 3D cabling and created 3D drawings for a leading global manufacturer, who specializes in mass spectrometers. This service was adapted from our electrical engineering services for aircraft and galleys wiring.



○ A competent partner
since 1997!



Key customers

We have a close working relationship with our customers, who in turn have placed their trust in us.

Our focus is based on continual improvement down to the smallest detail. We work in collaboration with our customers, specifying a project's requirements together, a connection, which makes us a more effective service provider.

We listen closely, clarifying your needs, thinking ahead for you systematically. We combine flexible, competent decision-making skills with decades of experience. Our customers worldwide appreciate the quality of AES products and services.*

- + Airbus Defence and Space
- + Airbus Operations
- + Bucher Leichtbau
- + Deutsche Telekom
- + Diehl Aviation
- + EFW – Elbe Flugzeugwerke
- + HAPPICH Group
- + JAMCO Corporation
- + Jet Aviation
- + Lufthansa Technik
- + OHB
- + RECARO Aircraft Seating
- + Safran Cabin Group
- + Thermo Fisher Scientific

*in alphabetical order



The tools of the trade

We use a variety of specialised software and tools to meet the needs and requirements of our customers. New or proprietary software is quickly integrated by our specialists. We strive for the best possible result - in everything we do!

Among others, we work with:

- + CATIA V4/V5/Experience
- + E³-Series
- + AutoCAD
- + CCD
- + SeeXP
- + VPM
- + SmarTeam
- + TAKSY
- + Circe
- + SAP (PDA/PAC/...)
- + ICC
- + ACP
- + SB Com
- + TechRequest
- + AIRINA
- + Norm Master

*»Quality is not an act,
it is a habit.«*

Aristotle

AES Aircraft Elektro/Elektronik System GmbH
Hanna-Kunath-Str. 33 | 28199 Bremen

T. +49 (421) 240 30 - 0
F. +49 (421) 240 30 - 77

www.aes-aero.com | info@aes-aero.com

