

CASE STUDY

HMI SPECIALIST HARNESSSES ULTIMATE CONTROL WITH R8

CUSTOMER

CHALLENGE

SOLUTION

ATOMS

ATOMS designs and manufactures control systems that must be able to withstand the most challenging environments, from extreme temperatures to hostile terrain, so the use of hardened components is part of its DNA. Beyond durability, ATOMS' clients are also very demanding, requiring stringent levels of certification, such as environmental qualifications according to MIL STD 810 or DO160 standards. ATOMS needed a rugged device that could meet these rigorous demands across multiple client sectors.

The R8 rugged tablet was recommended, which met all the necessary certification while providing optimum durability and powerful performance capability.



ATOMS

Headquartered in Monaco, ATOMS is a leading designer, developer and manufacturer of Human-Machine Interfaces (HMI) for aerospace, defence, military, naval and railway markets. The organisation offers configurable COTS/MOTS and fully-customised bespoke solutions at three integration levels: complete control systems, including consoles, control panels and rugged displays; control grips joysticks, levers and pedals; and mini joysticks, position sensors, back-lighted front panels and rotary sensors.

ATOMS provides a range of tailor-made products and services that are used across various markets, from airport radars and embedded flight controls in the aerospace sector to armoured vehicles, weapon systems and drones in the defence and military industry.

The diversity of ATOMS' markets brings a healthy business balance and a technical cross-knowledge. However, all clients share the same product demands - solutions must provide a high level of performance in terms of robustness, reliability, endurance, security documentation, cost-effectiveness, delivery time, energy consumption and compactness.



R8 Tablet





SOLUTION

Unparalleled durability

Typically, ATOMS' equipment must be able to withstand operating temperatures from -20°C to 60°C without degrading performance, but it also needs to remain operational in very demanding environments, for example, resisting salt spray, deterioration by fluids or even EMC aggressions or mechanical vibrations. Most of the devices' use is also outside, therefore, the equipment must be able to work in the rain and sometimes even resist Kärcher-type water spray. Durabook's ultra-compact R8 model meets these requirements by combining its Coolfinity™ fanless design with an IP66 rating, six-foot drop resistance, MIL-STD 810H and ANSI/UL C1D2 certifications for maximum protection. At just 0.86 kg/1.9lbs, it is also the most compact and portable 8" tablet on the market.



Powerful processing

ATOMS was launching a new product range and wanted to partner with the most powerful and rugged tablet on the market. The design team conducted extensive research to find a device that provided optimum performance and versatility and identified the R8 as the only device that met these needs. The R8 offers unparalleled flexibility by allowing for different performance levels (processors/memory) according to the customer's needs. For example, sometimes autonomy is a key requisite, and at other times, computing power is the focus. Equipped with the latest Intel® 12th Generation processors, and with the unprecedented new computing power of Intel® Core™ and Pentium® Gold CPUs, the R8 is built for data-processing and multi-tasking without compromise, offering ATOMS' customers a versatile solution for even the most demanding scenarios.

The R8 met ATOMS needs across several key criteria, including:

- Display size
- Powerful Intel® processor
- IP66 waterproofing
- Screen robustness
- Legibility in full sun
- Glove-enabled touchscreen
- USB and Ethernet connectivity
- Form factor/Weight
- TPM 2.0.

CONCLUSION

As a result of this successful partnership, ATOMS has a high-spec, durable, fully-functional R8 Ground Control Station. Consequently, in the future, they

are looking to expand their product portfolio to include a controller based on Durabook's R11 tablet.

Furthermore, with the current available R8 Ground Control Station, ATOMS and Durabook believe that through this partnership, they can expand their reach into other markets, including infrastructure inspection, public safety, agriculture, manufacturing and construction.

The partnership is still in its infancy, but many of ATOMS' clients already know the Durabook brand, so positive feedback is expected.

Yoann Plumey, Project Manager at ATOMS, says:

"Our new partnership with Durabook has been invaluable in growing our product offering. Not only are we now securely able to meet the requirements of customers working in the most demanding sectors, but we can explore new markets."

"Many of our customers are already familiar with the Durabook brand, whose reputation for providing versatile, high-performance rugged devices and unparalleled expertise is second to none. We look forward to continuing this partnership and working alongside Durabook to further grow our product and service offering."

Caillet Olivier,
Technical Director at ATOMS