Rugged design for challenging environments

Simplify project management and accelerate time to market

- Rugged handheld static elimination device
- Eight months to design and develop
- Extensive liaison with Swedish electronics team
- Intrinsically-safe design
- Modular design for flexible options
- Plastics, metalwork and print development
- Prototypes test and verification by Lucid
- Liaison with ATEX-accredited test house
- International supplier sourcing and liaison
- Comprehensive manufacturing specification

The Situation

Static build-up prevents paint bonding effectively, meaning wasteful rework, particularly in the automotive-refinishing industry. Static Solutions offered a low-level radioactive rod system licensed from the UK Atomic Energy Authority.

Unsurprisingly, the use of radioactive elements and the associated inspection and safety regime limited the scope for growth.

The Challenge

Ionised air offered a potential solution with fewer inspection restrictions. However, safely packaging a high-voltage, potentially explosive ion generator in an environment that could also be explosive required care.

Our Solution

Lucid's industrial design team observed users in refinishing shops. We used their experiences to drive the development of an ultra-robust pistol-grip product with a charging and docking station.

Working with statutory test houses, moulders, and materials suppliers, our designers proposed a robust structural design.

Working seamlessly with an international electronics development team, we considered design for manufacture upfront. Extensive finite element analysis, optimisation and prototyping, helped ensure that the device was ready to pass ATEX EX testing.

Working with international suppliers we created a specification that enable modular, low-quantity batch build.

The Result

8 years on, and Stat Gun is still on the market. The product featured in the BBC documentary 'How to Build a Supercar" showcasing production of McLaren's MP4-12C.

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