

Magnet Schultz | Case studies

Magnet Schultz UK is able to draw on more than 100 years of experience to create actuator control mechanisms that are second-to-none. By combining design, the world's best component parts and product innovation we have become a world leader in our field.

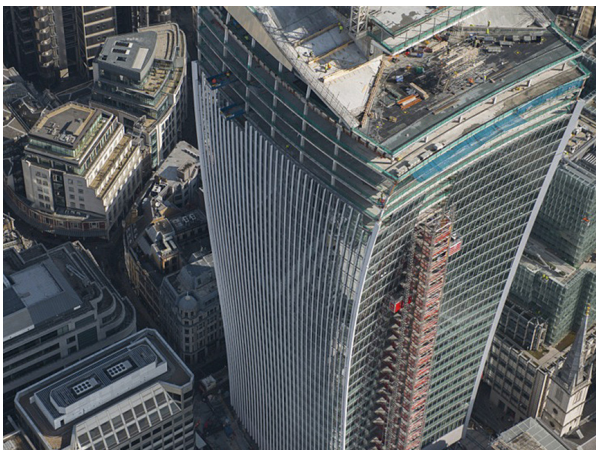
From design, testing and prototyping to the manufacture of actuator mechanisms, we work with the most complex manufacturing and engineering businesses in the world. We are proud to be associated with some of the world's biggest and most successful companies.



Magnet Schultz develops new landing door locks for safety-conscious Hewden.

Hewden, the UK's largest equipment rental provider, is leading the way in the development of health & safety features with our support.

Goods only hoists are essential in the construction of high-rise buildings for the transportation of heavy materials to multiple landings. With the old mechanism, accidents could occur if the landing gates opened whilst the hoist was in motion, or had not reached the landing.



Hewden approached Magnet Schultz to design and manufacture a fully mechanical interlocking door lock system for their goods only hoists. Within the new mechanism, a safety switch would establish whether the hoist had reached the landing before allowing the gate to be opened.

“ Magnet Schultz is an extremely professional company that put in time and effort to understand our requirements and was able to design a mechanism that fully achieved our goals. The company's prototypes were thoroughly tested under extreme conditions and worked superbly. As the locks incorporate industry standard connectors they can be quickly fitted without us having to employ an electrician ”

Martin Brady, Service Manager. Hewden Hoists.



National Oceanography Centre calls on Magnet Schultz expertise for pioneering Autosub

Magnet Schultz Ltd. has provided an electro-permanent magnet to the National Oceanography Centre for use in its Autosub6000.



The Autosub Autonomous Underwater Vehicle uses purpose-designed Magnet Schultz technology to release abort weights in the event of a fault. The sub has now completed successful deep sea surveys to depths up to 4600m.

As an underwater, unmanned vessel, the Autosub uses an electromagnet to hold a counter-weight beneath it. This electromagnet releases at the end of the Autosub's voyage so the vessel rises to the surface. An ARGOS beacon then emits a signal from the Autosub to enable a support ship to find and collect it, along with the data and samples collected.

The development of a release mechanism was not straightforward, as Magnet Schultz Business Development Engineer, Rob Kershaw, explains:

“ To work reliably we needed an energise-to-release electromagnet. As most electromagnets work the other way around, generating a magnetic field and using it in reverse uses a substantial amount of power, which can be expensive. We designed a system that allowed the unit to operate as a permanent magnet, holding continuously without power. ”



Hothouse Design Partners and Vodafone choose Magnet Schultz UK for actuator systems expertise

We have a long association with Kingston-based product innovation agency Hothouse Design Partners. So when they won a project to develop a mobile phone charging system for a fleet of Vodafone branded London Taxis they turned to us for a solution. Hothouse knew of our prototyping skills and medium-volume manufacturing capability, that's why they chose us to manufacture the Vodafone Taxi unit.

The Vodafone Taxi project lets all mobile phone users travelling around London charge their mobile phones. So, for the duration of a journey in a Vodafone London taxi anyone could boost their phone battery to get them through the day.

Our part in the project was to develop assembly and test processes for mass volume manufacturing output. Due to the nature of the roll-out programme, our production system had to contend with a fast ramp-up and short-term notice of output changes.

“ Magnet Schultz’s work was characterised by extremely sound organisational and electromechanical engineering skills. They are absolute experts in their field ”

Hothouse Design Partners, Project Team Leader



To read these case studies in more depth, or to find out more about the other industries and clients we work with, visit our website www.magnetschultz.co.uk

If you would like to know more about our other recent product innovation projects, or would be interested in a free feasibility study for your project, give us a call or email our team of technical experts to discuss your requirements.

Need more information or advice?

Email one of our technical experts at sales@magnetschultz.co.uk or call +44(0)1483 757 298 now