

- Convert angular or linear displacement into electric signals
- Controls moving parts
- Our encoders use photoelectric technology
- Provides absolute positional information
- Ability to read position without the need for movement
- Photoelectric Linear Encoders
- Photoelectric Rotary Encoders
- Reflective Type Encoders
- Magnetic Encoders

# Active Actuation

FEBRUARY 2017

## NEW! Bespoke Training and Development

As part of the evolution of ORLIN Technologies Ltd, we are now able to offer bespoke, training sessions which are specifically designed to fit the needs and experience of your business.



Designing, implementing and programming a solution is what we do best, thanks to the broad

knowledge gained over many years of working with actuators, drivers, controllers and associated technologies. Now we want to share our knowledge with our customers, so that you are able to adapt your own technology to best meet your needs as they evolve over time.

Our training packages are tailored to your very specific needs but typically include:

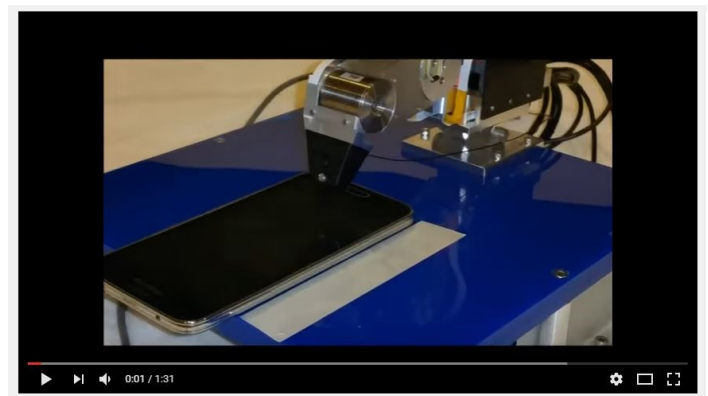
- **Free initial telephone consultation**, where we will discuss your business and what knowledge would help meet your challenges and improve your productivity.

- **Detailed quotation**, including a proposed itinerary.
- Training can be **delivered at your offices** or in our workshop in Bedford.
- **We can offer half-day, full-day or up to week long training.**
- Targeted training for **one to five people.**
- **Course notes** available afterwards.

**Get in touch with ORLIN Technologies Ltd today to find out more.**

## World First: Robotic Finger

ORLIN Technologies Ltd are proud to unveil the SMAC prototype version of the world's first direct drive servo motor robotic finger. It is shown here operating a Samsung Galaxy touchscreen phone. SMAC expects the robotic finger to be shortly followed by a robotic thumb and ultimately the first true functional robotic hand capable of reproducing work done by human hands.



# Multiple Uses for the Double Tip Tilt

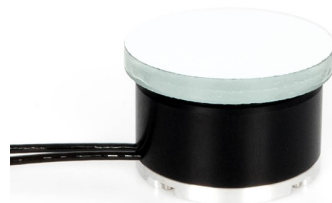
The Double Tip Tilt (DTT35XS) from CEDRAT Technologies is available through ORLIN Technologies Ltd in the UK. This technology was originally developed as a piezo point ahead mechanism or a fast steering mirror platform for the CNES space project called PHARAO. The off-the-shelf version is based on two pairs of APA35XS, amplified Piezoelectric Actuators APA®.

Each APA displays 35  $\mu\text{m}$  of stroke each, arranged in cross configuration to allow an angular deflection of  $\pm 2$  mrad around the X and Y axis. In order to achieve the two  $\theta_x$  and  $\theta_y$  angular deflections, each pair of APA35XS are electrically driven in push pull configuration and controlled in position by the standard CCBu20 controller box.

Research and Development have

been working with customers to developing several customized versions of the DTT35XS, together with CCBu20, that are now widely used and embedded in Electro-Optic (EO) space and defence systems.

The features of the standard & custom designed versions of the DTT35XS provides the EO customers with a Compact, Dynamic and Precise solution to improve the performances of their embedded vision systems.



To name a few applications are:

- Micro-scanning, Dithering or Pixel shifting for image resolution enhancement of low cost detectors,
- Optical image or line of sight (LOS) stabilization for anti shaking or anti blurring functions in order to obtain better image quality,
- High precision Pointing ahead for free space optical (FSO) communication systems,

Fast steering mirror for Atmospheric disturbances compensation of astronomical imaging system (telescope) or high power laser beam system (DEW)



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**ORLIN Technologies Ltd** has been providing solutions in precision motion control technology for a decade. We are industry specialists based in the UK and deliver high quality complete systems and components in motion control, micro and nano-positioning solutions and related products for science, industry and manufacturing.

ORLIN Technologies has teamed up with the leading international manufacturers in their respective fields to bring you the most innovative and reliable products on the market. Our expertise means that we are able to offer a full technical support service whilst providing the very best value for money to our customers. We have experienced engineers who can visit your site and discuss how ORLIN's products can increase your productivity and profitability.

**ORLIN Technologies Ltd is proud to supply products by:**



**SMART MOTOR DEVICES**