

spaceCoder

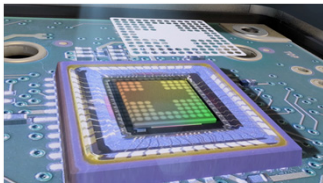
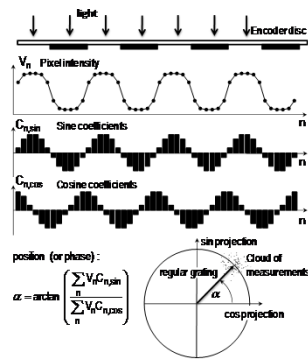
High-precision position measurement



Optical position measurements with spaceCoder offer unprecedented precision and reliability. By processing the image of a shadow cast by a code-plate onto an image sensor, the absolute position of an object can be measured with extremely high precision. Using simple shadow imaging, no lenses are required thus leading to a compact and low-cost position sensor. This technology can increase the performance of linear, rotary, 2D or 3D encoders, and extends position measurements up to 6 degrees of freedom.

spaceCoder principle

- A light source projects the shadow of a particular pattern onto the sensor
- Each pixel carries information about the 3D position of the light source
- A Fourier-like analysis of the shadow assesses the 3D position



Multiple configurations

Multidimensional encoders

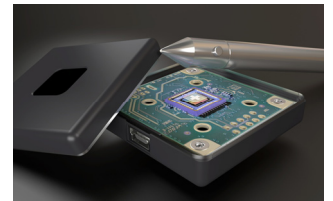
- Linear, 2D, 3D, 6D...

Rotary encoders

- Hollow shaft, End of shaft

3D pointing devices

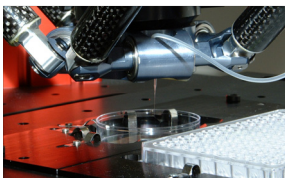
- TV remote control, joystick, 3D mouse...



Features

- Absolute position measurement
- Nanometric precision
- Large mounting tolerances
- Single-chip eccentricity compensation
- Many possible configurations

Ready for industrial applications



Precision Industry



Automotive



Spatial



Watch Industry



Computer Interface



Entertainment

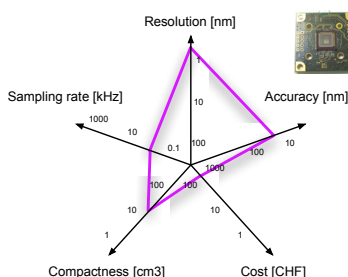


Sport

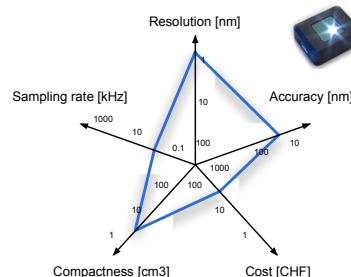


Medical

Imager + DSP



IcyCAM SoC



Custom ASIC

