

Chiroptera

Based on on PIC technology in combination with fiber/Grin technology.



Positive Impact

- Miniaturization and Stability
- Boosting manufacturing efficiency and sustainability



Initial Validation

A prototype is available and TRL is 5.



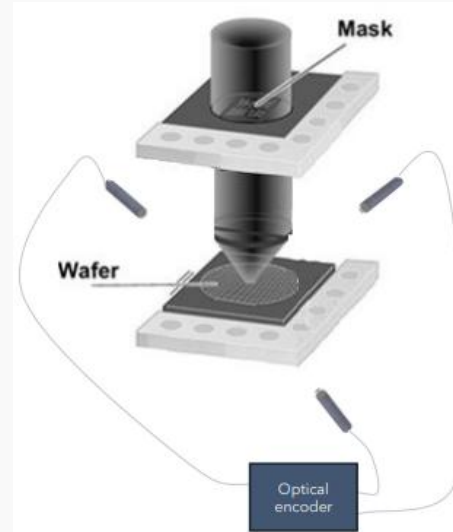
Solution

The solution lies in developing a system to replace all existing relative distance sensing and can be updated to an absolute distance sensor system.



Problem

Existing multi-axis displacement and position sensors are often large, complex, and difficult to install. They rely on bulky, discrete optical components that require meticulous and time-consuming alignment. This makes them unsuitable for applications with limited space or in harsh environments like a vacuum.



For illustration purpose only



Technology

- The technology uses integrated photonics as sensor platform and the unique properties of a Grin lens fiber sensor beating all distance sensors for long travel use in price/performance.
- A huge advantage is that the system can be used at extreme high precision just pointing at a reflective object. It does not need

high precision mirrors and it does not need accurate alignment, which makes installing the system to X,Y,Z stages easy and fast, especially for systems that operate in vacuum, the Grin lens can just look through a glass window targeting an aluminium (not polished) surface.



Call to Action !!!

We are looking for individuals with entrepreneurial mindset and strong experience in optical system design and development. Interested?

Please reach out at:

entrepreneur@hightechxl.com



Potential Markets

Several markets will be benefitted from this technology such as:

- Especially in X,Y,Z stages or linear motors etc.
- Aerospace and defence
- Research and scientific instruments
- Medical devices