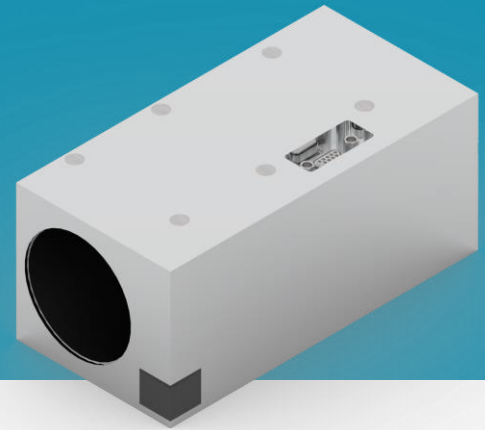


KU Leuven Star Tracker

Accurate and Compact Star Tracker for CubeSats

The KU Leuven star tracker offers arc second range pointing accuracy to your CubeSat. The custom algorithms are optimized for accuracy, robustness and low computational cost. The star tracker has a built-in baffle to reduce the effect of stray light. The system is compact and easy to interface in CubeSats and large satellites.



Star Tracker Features

Performance

- Cross-boresight: 2" (1σ)
- Around boresight: 10" (1σ)
- Tracks stars up to magnitude 6
- Tracks up to 16 stars
- Update rate of 10 Hz
- On-board calibration algorithm

Robustness

- Lost-in-space availability: >99% of the night sky
- Discards vast majority of false star instances
- Autonomously detects and corrects for outlier stars
- Baffle sun rejection angle: 40 deg
- Lens is radiation shielded
- Electronics are radiation tested

Power consumption

- Nominal: < 1W

- ✓ High accuracy
- ✓ High Robustness
- ✓ Easy interfacing

Interface

- +3.3 V
- Bright pixel/ROI/Histogram modes
- Alignment cube for integration

