



# High-Precision Nano Star Sensor

## AxelStar [Under development]

### Overview

AxelStar is a nano-sized star sensor capable of determining high-precision attitude in real time. AxelStar can detect up to 6th magnitude stars, and realize over 95% all-sky availability.

Weight, size and power consumption are all drastically reduced compared to conventional star sensors, which make it easy to be installed into nano-satellites.

Multiple AxelStars can be cascaded to improve the success rate of star identification and the accuracy of attitude determination.



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### Specifications

Field of View	8°x 8°
Single star position accuracy	30 arcsec
Stellar visible magnitude	~ 6.0
Attitude update rate	1 Hz
Operating temperature	-20°C to 50°C
Power consumption	< 1 W
Power supply	3.5-5.5V x 1, 5.0V-6.0V x 1 (can be combined as 5V input)
Command interface	3.3V SPI
Output	Raw image, Star direction, Sensor attitude (Quaternion)

\* AxelStar is under development and specifications above are subject to change without notice.

### Contact



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