

## VOXL® 2 Starling Product Brief

The Starling is a SLAM development drone supercharged by VOXL 2 with SWaP-optimized sensors and payloads optimized for indoor and outdoor autonomous navigation. Powered by Blue UAS Framework autopilot, VOXL 2, the Starling weighs only 275g and boasts an impressive 30 minutes of autonomous indoor flight time.



### Perception

**Built-in sensors to autonomously navigate indoors**

- [PMD time of flight \(ToF\) module](#) for indoor depth mapping
- [CV Tracking image sensor](#) for visual inertial odometry (VIO) localization
- [4K Hi-Res](#) for real time streaming, RGB image capture and video recording



### Autonomy

**Out of the box algorithms that run onboard VOXL**

- Visual Inertial Odometry to navigate in GPS denied environments
- Visual Obstacle Avoidance to fly safely in tight spaces
- 3D Mapping and Path Planning to fly hands-off in dynamic environments
- TFLite Neural Networks run object classification, detection, and other models



### Compute

**Open development platform with premier processing power**

- Powered by [VOXL 2 companion computer](#)
- Integrated [Qualcomm QRB5165](#) premium tier chipset onboard: 8 cores up to 3.091 GHz, 8GB LPDDR5
- [VOXL V2 4-in-1 ESC](#)
- Open-source software: OpenCV, ROS1, ROS2, Docker, PX4
- Built in WiFi, ELRS (Express LRS) R/C



### SWaP-Optimized Design

**Designed to maneuver tight indoor spaces**

- 275g take-off weight
- 210mm diagonal SWaP-optimized carbon fiber airframe
- 120mm folding propellers
- 30+ minutes flight time





# VOXL<sup>®</sup> 2 Starling V2 Development Drone



