

SENSOR MODULE INSTALLATION	The sensor unit is installed on the drone in a position providing field of view to landing beacons on the ground.
BEACON INSTALLATION	The beacons are on the ground or a moving target, aimed upward. Each beacon has a unique code.
FIELD OF VIEW	The sensor has a 120-degree field of view. Line of sight between sensor and beacon is required.
RANGE	Tested up to 100m in full sunlight.
ALGORITHM SOFTWARE	Lightweight, can run on a companion computer as small as a Raspberry Pi 3b.
PRIVACY	System is not a camera and only captures the coded infrared light sources.
HIGH SPEED	Tracking speeds up to 400 Hz
WEIGHT	Sensor board weight: as low as 30 grams
POWER	Sensor Board – 5v USB (200mA = 1.75W) Beacons – 24v (1 amp)
HARDWARE INTERFACE	UDP RJ45 Connection between sensor board and companion computer.
SOFTWARE INTERFACE	Software SDK includes C++ API, Python and ROS2 bindings, and GUI tools.

DevKit available starting from \$2,700 + freight

Includes: Sensor Unit, Beacon Driver, Assorted Beacons, Software and Support. Visit our website for more details.

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Guide your drone to a precision landing in any environment, from total darkness to direct sunlight.

The Sixdof sensor unit locks onto a uniquely coded beacon for centimeter-level accuracy, on a stationary platform or moving deck, without relying on GPS.



Outperforming **QR Code** Solutions:








- Struggle to work when there are shadows
- Require significant on-drone processing overhead
- Have difficulty operating unless the drone is in stable, vibration-free flight
- Cannot work at night without cumbersome backlighting

Outperforming **Standard Beacons**:

- Function poorly under a long list of challenging conditions
- Do not scale to allow multiple landing pads at a single site
- Cannot provide full 6DOF, or even pitch and yaw reading for a safe landing

Drone Landing Guidance Down from 100 Meters

Sixdof's unique technology, the result of over seven years of R&D, is based on our patented Aspheric Toroid Compression Lens. The Sixdof technology provides the platform for a perfect landing guidance solution:

-  Provides Positional, Directional and Pose information, even in sunlight and shadow
-  Works in GPS-denied areas
-  Provides orientation (full 6DOF)
-  Can land on a moving or stationary target
-  Rapid update rate for exceptional control in windy conditions
-  Dynamic Messaging enables short one-way optical transfer between beacon and sensor
-  Has no camera, ideal in restricted areas

