



Tiki3D
Reality Capturing & Beyond

Tiki3D Lonehawk

Mobile Real-time 3D Mapping Solution

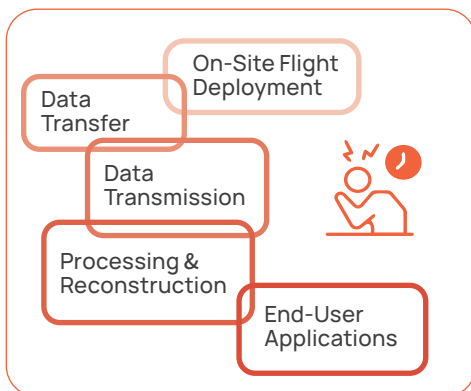


Tiki3D LoneHawk Real-Time Modeling System

The **LoneHawk** Mobile Real-Time Modeling System for solo operators deeply integrates drones, real-time transmission modules, reconstruction software, and high-performance hardware. It delivers an end-to-end solution for flight, live data streaming, and instant 3D reconstruction.



Challenges in Emergency Reality 3D Reconstruction



Traditional workflow



Key Features

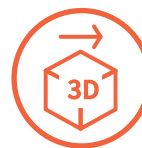
- Automated
- User-Friendly
- Rapid Deployment



**Fully autonomous
real-time modeling**



Transmit Data
Mid-Flight



Generate
Models During
Transmission



Lossless Detail
and Quality
3D Output



Scan the QR code to log in to the website
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Tiki3D Tiki3D LoneHawk Real-Time Modeling System

- **High Efficiency Acquisition**
Fewer photos needed with optimized flight paths. Single fixed-wing UAV sortie (at 3cm GSD) can cover over 5 km² permission.
- **Stealthy Flight Capability**
High-altitude operation (300m+ at 3cm GSD) without overflying targets. Low probability of detection.
- **Real-Time Results Output**
Unique orbit flight pattern and processing algorithms enable fully automated real-time 3D mapping.
- **Fully Autonomous Field Operation**
Unmanned drone docking station + TWS 3S + cloud control platform. Carry out mission autonomously without manual operation.
- **Integrated Survey-to-Application**
Real-time processing connects to application systems (real-time rendering, remote streaming, mobile/XR wearables) for immediate usability.

Tiki3D LoneHawk Real-Time Modeling System

- 🕒 **Rapid Deployment**
Lightweight and portable, quick assembly, operable by single person for fast response.
- 👉 **Simple Operation**
Highly integrated software seamlessly connects flight planning, aerial photography, data transmission, and 3D modeling with one-click operation.
- 📶 **Stable Transmission**
High-speed data link with automatic ground station tracking. 15km line-of-sight* gigabit real-time transmission.
- 🎯 **High Efficiency Results**
Works for any area size - simultaneous flying/transmitting/modeling. Full-resolution 3D models within 5 minutes upon data transmission completion.

* Line-of-sight or unobstructed conditions required.



Rapid Deployment Operations



Environmental & Natural Disaster Monitoring



Disaster Relief Surveillance



Reconstruct Reality Scene in Real Time

System	Component	Description	Product Image
Lonehawk Real-Time 3D Modeling System	Quadcopter Drone (TS001/TS003/DJI Enterprise Drones)	① Folded dimensions: 52cm×16cm×24cm, Unfolded: 48cm×27cm×49cm ② Drone weight: 1.8kg, Takeoff weight: 3.3kg, Max takeoff weight: 7kg ③ Flight time: 50min (oblique camera), 60min (single lens), 70min (no load) ④ Wind resistance: ≤Level 7 ⑤ Max speed: 20m/s ⑥ Control range: ≤20km ⑦ Operating temp: -25~55°C ⑧ PPK/RTK/GNSS redundant positioning ⑨ Radar obstacle avoidance: Auto-detour while continuing mission ⑩ Fully autonomous operation (one-touch takeoff/landing) ⑪ IP55 protection	
	Single-lens Camera	① Resolution: 42MP ② CMOS size: 35.9mm×24.0mm ③ Focal length/Aperture: 18mm/f/5.6 ④ Min shot interval: 0.7s ⑤ Modes: Nadir/Orbit/Scan	
	Data Transmission Module	① Range: ≤5km ② Bandwidth: 1Gbps	
	Single-Node Workstation (Tri-screen)	① CPU: Intel i9-14900KF ② RAM: 128GB ③ GPU: NVIDIA RTX5070Ti ④ Display: 17.3" FHD (1920×1080) × 3 ⑤ Software: Tiki3D Real-Time Modeling Suite (Pro)	



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