Tiki3D
Reality Capturing & Beyond

Tiki3D

One-stop Reality 3D Modeling Solution 2025

Auckland | Hong Kong | Shanghai | Roma | Mumbai | Dubai

Processing Software & Platform

- Tiki3D Reality 3D Modeling Software
- Tiki3D TikiSplat
- Tiki3D Satellite
- Tiki3D Editor
- TikiVerse
- Tiki3D Advanced Toolkit
- Low-Altitude Intelligent Drone Grid Management Platform

Processing Hardware

- TWSmini
- TWS 3S
- TWS Box
- TWS Rack

Data Acquisition Hardware

- Tiki Little Monster
- Tiki TR1 FalconEye
- Tiki T505 MiniMonster
- TS001 Drone
- TS003 Drone
- TMP5 Drone
- T720 – Multi-Rotor Drone Dock
- T715 - Fixed-Wing Drone Dock

Industrial Solutions

- City Mapping/Aerial Survey
- Lonehawk Real-Time 3D Mapping
- Commercial Inspections

Tiki3D, established in 2018, is a Hong Kong-based innovative tech start-up providing one-stop-shop solution for reality 3D modeling. With over a decade of experience in such field. Our industry-leading post-processing software suite incorporates powerful AT algorithm and high performance 3D model reconstruction capability for data acquired by drones, LiDAR scanners or satellites. It is also a competitive end-to-end solution covering processing hardware, aerial cameras and mission planning services for data acquisition. Ideal for Survey & Mapping, Urban Planning, Inspection, Infrastructure, Emergency Rescue, Mining, Security, etc.

Scan the QR code to log in to the website
www.tiki3d.com

Tiki3D Reality 3D Modeling Software

Being the pioneer and leader in Reality 3D modeling software systems, our software is user-friendly, easy to learn, and quick to master; it features strong aerotriangulation algorithms to create 3D models at high efficiency. It fully supports a range of image sources, from mobile phone cameras to large 150-megapixel medium-format cameras, and from low-altitude frame cameras to Satellite Linear Array Pushbroom (LAP) cameras. Built-in rapid 3D model editing tools make it easy to refine damaged areas such as water bodies and road intersections. It features a complete model editing workflow.

Tiki3D Reality 3D Modeling Software | Features

User friendly interface and workflow

Powerful Aerotriangulation algorithm

Comprehensive Support for all data sources

Built-in model refinement tools

Complete Model production workflow

Self-developed solution, highly customizable.

Product Version	Standard	Pro	Ultimate
Source Data	< 26 megapixels	< 62 megapixels	Above 62 megapixels
Camera Type	Drone Cameras		Industrial Grade
Cluster Computing	Y	Y	Y

• Infinite Aerotriangulation Algorithm (ENHANCED)

Our "Enhanced Aerotriangulation Adjustment Mode" further increases the data processing capacity for standalone computers, supporting the processing of 100,000 images with 64GB of RAM or 200,000 images with 128GB of RAM. It maximizes hardware utilization in different hardware clustering configurations. Additionally, "Aerotriangulation Volume Mode" has been enhanced, increasing the processable data volume limit. This mode supports the processing of over 1 million images with 64GB of RAM. Each processing stage utilizes cluster parallel computing, employing adaptive partitioning to significantly reduce data redundancy. With automated fusion, you can achieve consistent accuracy in your aerotriangulation results, all while simplifying your workflow with minimal manual intervention.

• Infinite Fusion

Our system supports a wide array of multi-source heterogeneous sensors at multi-level resolutions, eliminating the need for geospatial references. It seamlessly integrates both aerial and terrestrial data, indoor and outdoor data, all without requiring any human intervention, paving the way for a One-click solution for aerotriangulation and 3D model reconstruction. Additionally, the latest update enhances compatibility and adaptability across various image and laser scanning devices.

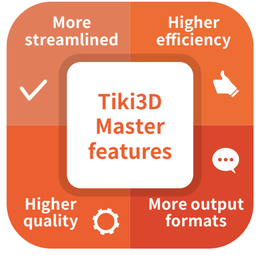
• Infinite Intelligence

Equipped with built-in AI deep learning interface, our software automatically performs water surface repairs; recognizing surfaces, filling holes, flattening, and color balancing without requiring manual input. Additionally, our image control feature identifies all control points within your survey area, streamlining the process and enhancing efficiency.

Tiki3D Reality 3D Modeling Master

A simplified one-click reality 3D modeling software specially designed for fast, high-precision modeling tasks.

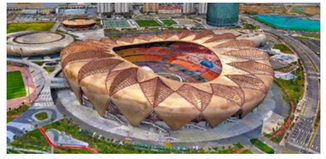
- Minimalist UI with one-click processing （AT + 3D Reconstruction + 2D Reconstruction）, suitable for both professionals and non-professionals.
- High-efficiency modeling with >5 times speed boost meets rapid standalone computer processing needs. New **dense matching algorithm** and **CUDA-optimized workflow** dramatically improve processing efficiency.
- High-quality 3D models with intelligent color adjustment algorithm ensures color consistency.
- Premium true orthophotos with differential correction minimize vegetation "waxing" and jagged building edge.
- Multiple output formats: 3D models (OSGB/3DTile/OBJ/LAS), 2D orthophotos (DOM), DSMs and DEMs.

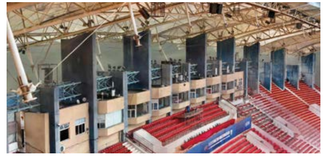


Tiki3D TikiSplat - Advanced 3D Production Driven by Gaussian Splatting Techniques

- The newly unveiled Tiki3D TikiSplat module features highly efficient, accurate, and realistic scene generation capabilities, achieving high rendering speeds while preserving fine details and complex lighting effects, with broad application potential.
- Generate hyper-realistic, expansive 3D environments.
- Bring immersive experiences to life across platforms and screens.
- Rapidly produce lifelike large-scale virtual worlds.

Case Study

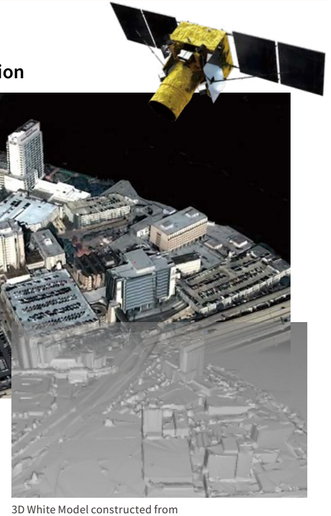

Tiki3D Satellite Imagery Modeling System

Tiki3D Satellite is a world-leading automatic 3D modeling system for satellite imagery, featuring a fully automated workflow mode and efficient processing capability to produce high-precision satellite realistic 3D models. Using self-developed and highly robust Dense Image Matching algorithms to produce denser Point Clouds with higher accuracy and resolution. Adopting a high-precision Point Cloud Fusion algorithm based on image guidance to achieve building edges that are more refined.

Using Classification Interpolation Technology to ensure finer terrain models in mountainous areas with high slopes. With accurate structures and natural textures, the overall quality of our models far exceeds the level of our competitors.

> Tiki3D Satellite Application

3D Model constructed from
Multi-View Stereo 0.5 Meter
Worldview Imagery



3D White Model constructed from
Multi-View Stereo 0.5 Meter Worldview Imagery

• Key Features and Advantages

- Supports a rich array of image data sources that are capable of forming 3D stereo pairs, such as SPOT6, SPOT7, GF-7 high-resolution satellites, Pleiades, Kompsat, Worldview1-2-3, etc.;
- Supports a wide-range of output formats such as DSM, DOM, LAS Point Cloud, obj, osgb, and other formats;
- The High-fidelity Fusion algorithm ensures the maximum restoration from the image data of ground objects;
- Self-developed and highly robust Dense Image Matching algorithms produce denser Point Clouds with higher accuracy and resolution;
- World-leading satellite imagery modeling technology with straight building edges and realistic building facade textures;
- Simple and efficient data processing: Upon importing of data, real-world 3D models can be constructed on a single click;
- Satellite imagery modeling functions have been integrated into Tiki3D Software's user-friendly interface, simplifying the learning process.

• Tiki3D Editor

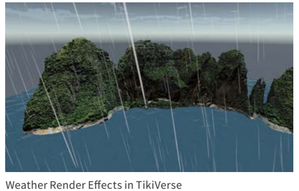
Tiki3D Editor is a software for detailed individual model and mesh model editing. It includes features like building **surface flattening, texture modification, removal of floating objects, road flattening, water surface patching, bridge and tunnel penetration, and a model library.** It enables detailed model repair, topology optimization, and mesh reconstruction to fix model defects, hole patching, and shape correction, enhancing the quality of automatically produced models and meeting the needs for high-precision modeling.

Effects Before and After Model Editing

Water Surface Refinement

• TikiVerse - Cross-Platform 3D Visualisation Software

TikiVerse is a specialised visualisation software for real-world 3D and BIM applications that offers **game-level rendering effects**. It provides tools to set various weather conditions like rain and snow, adding animated dynamic vehicles and characters, batch-planting of vegetation, creating dynamic water bodies, **transforming static scenes into dyanmic moving states**, creating game-quality animated scenes. The output data models are compatible with OGC/IFC/S3M standards and various viewing applications, **facilitating seamless integration between BIM and GIS data across different domains**. Industry Application customisation is available.



Weather Render Effects in TikiVerse

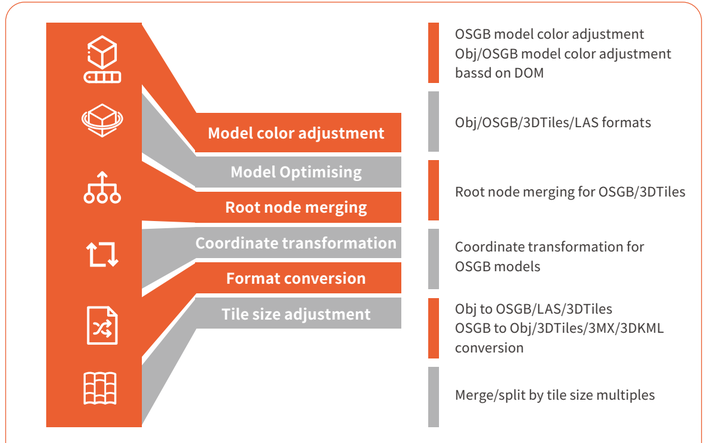
Night Render Effects in TikiVerse

• Color Adjustment

The Tiki3D Editor provides versatile tools for fine-tuning image color parameters, allowing you to adjust parameters like brightness, contrast, white balance, and saturation with ease.

Color Adjustments Effects

Tiki3D Advanced Toolkit - Data Processing Features

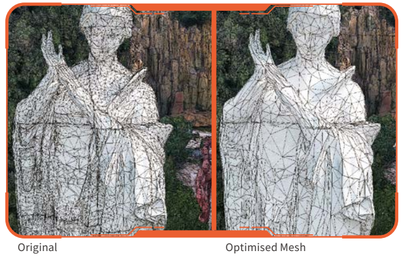


"Provide data management tools that enable direct editing of the final 3D model, reducing workload during model generation and improving overall efficiency."

Tiki3D’ s Advanced Toolkit is a versatile tool that gives user a range of options such as coordinate transformation, format conversion, root node merging, tile size adjustment, model optimization and model color adjustment.

• Advanced Toolkit Features

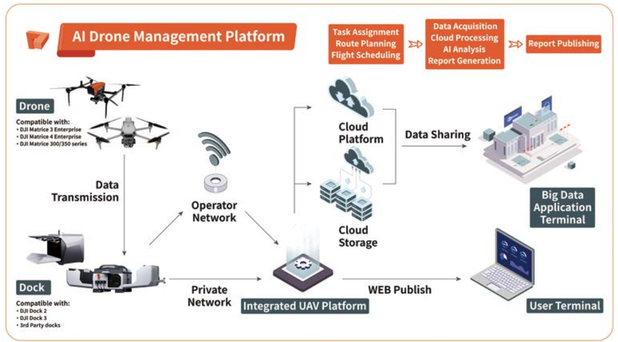
· New Model Optimisation algorithm reduces size by up to 70% while maintaining structural integrity.
· Color Adiustment based on model/DOM color.



Original　　Optimised Mesh

Before color adjustment　　After color adjustment

Low-altitude Intelligent Drone Grid Management Platform



Tiki3D's AI-Powered Drone Management Platform is a comprehensive ecosystem for end-to-end drone operations, including mission planning, autonomous drone and docking station management, real-time data transmission, cloud processing, data sharing, and advanced analytics with visualization.

• Key Features

- Smart Flight Scheduling: Efficiently plan and automate hundreds of daily missions with customizable repetition cycles and route types.
- Autonomous Operations: Drones and docking stations execute pre-planned missions with minimal human intervention.
- **Versatile Flight Modes:** Choose from 17 flight path types and 37 flight modes, including level flight, terrain imitation, sweeping, and façade plane sweeping for precise object targeting.
- Multi-Device Monitoring: Real-time flight broadcasting enables centralized, multi-screen monitoring in control centers.
- Cloud-Based Data Processing: Aerial imagery is uploaded to the cloud and automatically processed into 3D models, 2D orthophotos, and actionable insights.
- AI-Powered Analytics: Our advanced AI detection module identifies faults, cracks, and anomalies in infrastructure inspections.
- Broad Compatibility: Supports a wide range of drones and payloads for diverse applications.

Designed for reliability, security, and scalability, Tiki3D's platform ensures seamless data collection and processing for industries ranging from construction and agriculture to energy and public safety.

Little-Monster Oblique Camera System

The Little-Monster Aerial Camera is an oblique aerial photography system independently developed by Tiki Technologies. The system consists of five 100 or 150-megapixel Phase One industrial camera, which capture textures of buildings, rooftops and facades from different angles. The system is reinforced, calibrated for precision, and equipped with a measurement-grade GPS aerial antenna, high-precision inertial altitude measurement system, and an aerial photography management computer. The system also features softwares for flight path design, flight control, and data post-processing.

Little Monster 1

Little Monster 1 - Equipped with a surveying GPS aerial antenna, a NovAtel/S1 high-precision inertial altitude measurement system, and an aerial photography management computer; Lens angle is configurable and there are various types of lens to choose from based on your needs.

Little Monster 2

• Newest flagship - Little Monster 2

Storage capacity : 4TB
Minimum Exposure Interval: 0.9s
Size: 330.6mm x288mm
Power supply: 19~30V DC
Power Rating: ⩽ 450W
Temperature Range: -10°C ~40°C

*Little Monster 2 consists of five 150-megapixel Phase One industrial cameras, which capture textures of buildings, rooftops and facades from different angles. The system is reinforced, calibrated for precision. Weighing only 18 kg, Little Monster Camera systems can be easily mounted on different types of aircrafts. The Little Monster also offers flexible lens and angle configuration options tailored to different user needs, diverse terrain and climate characteristics. User-friendly Pilot and Operator navigation interface enables a more intuitive operation.

High-Precision Aerial Survey Camera System

TIKI TR1 FalconEye

SONY Full-frame, 3-Axis Gimbal, Interchangable Lens

FalconEye is a professional-grade aerial survey camera system that features an interchangable lens Sony ILX-LR1 Camera, 3-Axis Gimbal, and feature add-on main control board. It combines high resolution, light-weight design, real-time settings, efficient storage, rapid burst shooting, and high-definition video recording.

High Resolution SONY ILX-LR1 Full-Frame Camera
61 MP effective full-frame Sony sensor.
Enjoy full Sony warranty, retaining camera's resell value

Versatile & Lightweight Design
Interchangeable Lens Body only weighs 420g (excl. Gimbal)

Efficient Data Storage and Management
External high-speed SD card, photos with real-time POS data.

Superior Image Quality

At 61 megapixel, Sony ILX-LR1 Camera produces high-quality images with low noise and high dynamic range. Allows for detection of fine cracks and scratches during inspection and mapping purposes.

Advanced BIONZ XR ™ Image Processor

Compared to the previous generation processor, the performance is improved by approximately 8 times. It reduces processing latency while enhancing the handling of video and still images, resulting in excellent image quality and fast camera response.

Efficient Capturing Performance

Under Single-shot mode, continuous exposures can be triggered at 0.8 seconds interval. This feature improves efficiency and reduces operation time while ensuring precise trigger control.

Technical Specifications

Dimensions / Weight (without gimbal)	108 × 78 × 100 mm / 560 g	POS Storage	Real-time POS capturing onto photos
Dimensions / Weight (with gimbal)	180 × 154 × 160 mm / 920g	Trigger Method	Manual trigger, automatic trigger
Image Resolution	9504*6336	Environmental Humidity	≤70%
Total Pixels / Shortest Exposure Interval	Approx. 61 million / 1s	Pixel Size	3.7μm
Sensor Type	Exmor R CMOS sensor	Sensor Size / Shutter Speed	35.7mm × 23.8mm / 1 / 8000 to 1 s
White Balance	Auto / Shadow / Overcast / Sunny	Photo Size	Large/Medium/Small
ISO	Auto or fixed mode (100-6400)	Image Quality	Low/Standard / Fine / Super Fine
Photo Format	JPEG/JPEG & RAW/RAW	Structural Feature	Detachable E-mount lens
Lens Type	Professional Prime Lens	Image Transmission / Power Supply	Dynamic HD image transmission / External 12-18V
Video Recording / Recording Format	1080P / MP4	Camera Parameter Settings	DJI remote control or WIFI web settings
Data Storage	External 256G high-speed storage card	Compatible Aircraft / Operating Temperature	DJI Matrice Series, and more / -10°C to 60°C

Aerial Oblique Camera System

Tiki T505 MiniMonster

High-Performance Five-Lens Camera

With a total resolution of 305 million pixels, the camera integrates five 61-megapixel full-frame Exmor-R CMOS back-illuminated image sensors. The integration of a high-performance AI motherboard ensures the collection and transmission of data with superior image quality, enhancing processing speed. This allows the camera to handle high-speed data processing and real-time transmission of images. The camera excels in dynamic scene capture, capable of quickly adjusting to moving objects and operating in extreme conditions, making it suitable for industrial applications, aerial surveys, and surveillance.

Linux-based AI motherboard

Expandable Type-C Port, supports extended development functions

Camera Parameter Controlled via Remote Controller and Dual-channel WIFI

Camera operation information is displayed in real time on the remote controller. DJI Remote Controller allows real-time camera parameter adjustments and can connect to the camera's WIFI for parameter configuration via the web interface.

1-Second Minimum Exposure Interval

With the high-speed storage module and powerful AI chip, the minimum exposure interval is reduced to 1 second, enabling efficient image data collection at high speeds.

HD Downward Video Transmission

The powerful AI chip processes video data at high speed, ensuring smooth transmission of video without lag.

Technical Specifications

Dimensions	175×170×130mm	Weight	Approx. 1400g
Image Resolution	9504×6336	Pixel Size	3.7μm
Total Pixels	305 million	Shortest Exposure Interval	0.8s
Sensor Type	Exmor-R CMOS sensor	Sensor Size	35.7 x 23.8mm
White Balance	Auto/Shadow/Overcast/Sunny	Shutter Speed	1/8000 to 1 second
ISO	Auto/Manual	Image Quality	Low/Standard/Fine/Super Fine
Lens Type	Professional Prime Lens	Lens Focal Length	Nadir 40mm, Oblique 56mm
Image Size	Large/Medium/Small	Network Function	Type-C Expandable Network
Data Storage	External 1280GB High-Speed Storage Card	Structural Performance	Integrateed Camera Lens
Power Supply	External 10V-18V	Video Transmission	Nadir Dynamic HD transmission
POS Storage	Independent Accurate POS for each lens	Camera Parameter Settings Adjustment	DJI remote controller or WIFI connection
Trigger Mode	Manual trigger/Automatic trigger	Compatible Aircraft	DJI Enterprise M300/M350 series and more
Humidity	≦70%	Operating Temperature	-10°C to 50°C

UAV | Drones | Drone Dock

TS001

TS001 quad-rotor drone equipped with 24-megapixel sky camera

- Max Flight Time: 45 minutes
- 1 sqkm model reconstruction duration: 15 minutes (GSD 5cm)
- Maximum load 2 kg
- Interchangeable mount design

TMP5

Wingspan: 3m, Fuselage Length	1.62m
Maximum Takeoff Weight	21 kg
Payload Capacity	4 kg
Economical Cruise Speed	80km/h
Service Ceiling (Cruising Altitude)	7000m
Power System	AIL-Electric Endurance (Over 6 hours)
Airframe Material	Ultra-light carbon fiber

T720 – Multi-Rotor Drone Dock

- Compatible with various drone models
- Intelligent 120s Battery Swap System
- Full Remote Control
- 24h Continuous Operation
- IP55 Weather-proof

*Drone not included

TS003

Takeoff Weight	33.5 kg
Wheelbase	1300 mm
Payload Capacity	15 kg
Cruising Speed	20 m/s
Flight Time (No Load)	75 min
Flight Time (Full Load)	30 min
Wind Resistance	Level 6 (Gale, Beaufort scale 7)
Obstacle Avoidance	Omnidirectional Automatic Avoidance
Altitude Ceiling	4500 m
Smart Features	Return on Loss of Control, Return on Low Battery, Route-based Flight, Voice-controlled Take-off, Full Autonomous loading and unloading

*Drone not included

T715 - Fixed-Wing Drone Dock (w/Intelli-AGV)

Dimensions	3.5m x 2.0m x 1.25m
Weight	820 kg
Features	Automatic recovery Automatic charging Automatic mission execution
Operating Temperature	-30°C to 50°C
Altitude Suitability	Adaptable to 7000m high-altitude environments

Scan the QR code to log in to the website
www.tiki3d.com

TWSmini

The TWSmini Mobile GPU Workstation is designed to be highly portable and versatile. The TWSmini has shown outstanding performance in emergency rescue and other field operations,and gained the nickname of "Reality Modeling in a Box".
At 25kg, the size of a suitcase, it is suitable for field missions in remote areas. It is able to construct 3D models real-time, in the field.

TWS 3S

The TWS 3S is the latest model in the Mobile GPU Workstation series. It features three integrated display monitors, all in a compact, portable design. Despite its small size, the TWS 3S delivers powerful processing capabilities, enabling efficient handling of large data volumes with high-speed performance.

TWS Rack

The system features a compact, modular 1U design with hot-swap and plug-and-play support, housing up to four GPUs. It includes remote management (IPMI, KVM), dual 4000W redundant power supplies, and supports AMD Ryzen CPUs and GPUs. Ideal for virtualization, deep learning, 3D rendering, and edge/cloud computing.

TWS Box

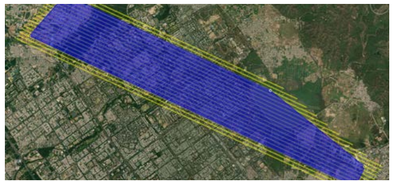
The TWS Box is a highly compact GPU Workstation series. It features latest Intel/AMD CPU, NVIDIA Graphic Card, in a easily scalable way, designed specially for reality 3D model processing. Despite its small size, the KWS Box delivers exceptional processing speed, enabling efficient handling of large data volumes with high-speed performance.

Model	TWSmini	TWS Box/TWS 3S	TWS Rack
Computing Nodes	Option of 6 or 10 nodes	1 node	4 x 1U nodes
CPU	Intel® Core™ i9 processor 14900KF (36M Cache, up to 6.00 GHz)	Intel® Core™ i9 processor 14900KF (36M Cache, up to 6.00 GHz)	Intel® Core™ i9-14900KF (36M Cache, up to 6.00 GHz)
Graphic Card	NVIDIA RTX 5070Ti GPU	NVIDIA RTX 5070Ti GPU	NVIDIA RTX 5070Ti GPUs
Memory	128Gb DDR5	128Gb DDR5	4*DDR5 Max 48Gb per slot
Storage	Fast NVMe SSD Storage (from 8TB Intel U.2 SSD)	2TB M.2 NVMe Storage	3x M.2 Gen4 slots (B650),2x M.2 (A620),or 1x M.2 (X600/X300)
Network	10Gbps Ethemet Port	Public network module, WiFi, RJ45 module, 4G SIM card, WLAN module	Dual 2.5G LAN + optional 10G SFP+ with PXE/SR-IOV support
Display	Starting from 2560 × 1440 @ 144Hz	No display / Built-in Tri-screen 17" 1080p resolution	-
Power	1000~4000PSU	800PSU	2000W redundant PSU (94% efficiency), 240V DC/AC input
Size/Weight	0.06 cbm/16-30kg	490 x 250 x 410mm/16kg	2U chassis(650 x 435 x 88mm)/28kg

Industrial Solutions

City Mapping / Aerial Survey

For Aerial Survey Mapping purposes, Tiki offers an end-to-end solution that includes Tiki Intelligent Flight Path Planning, image capturing hardwares, and 3D reality modeling software.
With years of experiences in Reality 3D modeling for cities , Tiki3D's solution has evolved into a robust & extreme performance 3D modeling system. The system had been deployed in data centers and had successfully processed millions of images in both AT and reconstruction in scalable grid-computing architecture. Our satisfying customers achieved over 200Gpix/day/machine with easily affordable software & hardware investment.



Manned Aircraft Surveying Flight Path

Tiki Intelligent Flight Path Planning

Little Monster 2 mounted on helicopter

Little Monster 1 India Project with Fixed Wing Aircraft

Aircraft Type	Imaging Solution	Aerial Vehicle Solution	Tiki3D Reality Modeling Software Version
Manned Aircraft (Helicopter, Fixed-wing)	· Little Monster Oblique Camera System	-	Ultimate
UAV/Drone	· TR1 FalconEye (Single Lens) · T505 MiniMonster (Oblique)	· TMP5 Fixed-Wing Drone · TS001 Drone · TS003 Drone	Standard/Pro

Extensive Experience

Tiki3D has accumulated over 2million sqkm of 3D modeling experience

Superior Efficiency

Process and produce over hundreds of sqkm of 3D model within 24h

• Recommended Products

- Tiki3D Reality 3D Modeling Software
- Tiki Drone Grid Management Platform
- TS001/TS003 Drone
- TMP5 Fixed-Wing Drone
- T505 MiniMonster
- TR1 FalconEye
- Little Monster

Tiki3D Lonehawk

Mobile Real-time 3D Mapping Solution

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.

Tiki3D LoneHawk Real-Time Modeling System

Rapid Deployment
Lightweight and portable, quick assembly, operable by single person for fast response.

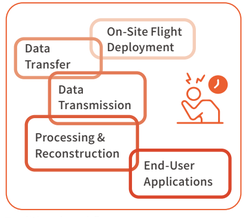
Simple Operation
Highly integrated software seamlessly connects flight planning, aerial photographing, data transmission, and 3D modeling with one-click operation.

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.

Challenges in Emergency Reality 3D Reconstruction

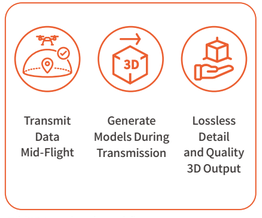


Traditional workflow

· *Automated*
· *User-Friendly*
· *Rapid Deployment*

Fully autonomous real-time modeling

Key Features



Tiki3D Lonehawk workflow


Rapid Deployment Operations


Environmental & Natural Disaster Monitoring


Disaster Relief Surveillance


Reconstruct Reality Scene in Real Time

Aerial Image Capturing
UAV/Drone takes off from base, starts capturing aerial images based on flight paths generated on Tiki's Smart Mission Planning Platform.

Data Transmission
While UAV/Drone is in operation, data is transmitted live to the ground receiver. Flight operations will not be affected.

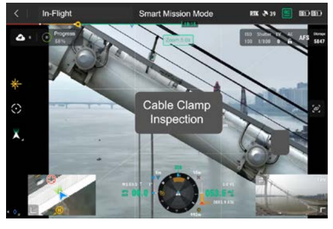
3D Model Reconstruction
Tiki3D TRMS Real-time 3D Model reconstruction begins with the data that has been received on the ground by batches.

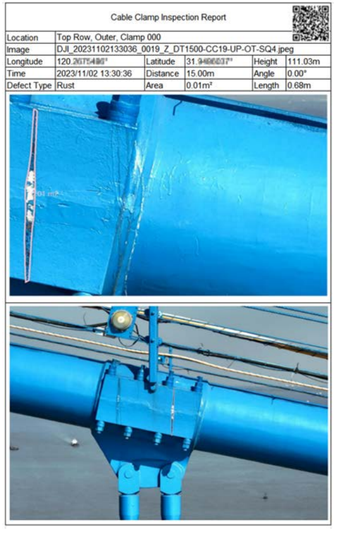
- **High Efficiency Acquisition**
  Fewer photos needed with optimized flight paths. Single fixed-wing UAV sortie (at 3cm GSD) can cover over 5 km² permission.
- **Stealthy Flight Capability**
  High-altitude operation （300m+ at 3cm GSD） without overflying targets. Low probability of detection.
- **Real-Time 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.

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℃ 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)**	

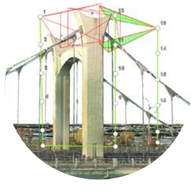
Commercial Inspections

Tiki Smart Mission Planning uses boundary and elevation data from coarse models to create flight paths for close-range photogrammetry of facades. These flight paths feature automated execution, consistent focal plane alignment with the surveying surface, constant relative distance, and consistent overlap.





- **Recommended Products**
  - Tiki Drone Grid Management Platform
  - TWSmini / 3S / Box / Rack
  - TS001 / TS003 Drone
  - T720 / T715 Dock
  - TWS Rack
  - TR1 FalconEye
- **Suitable Industry**
  - Construction & Maintenance
  - Civil/Aviation Authorities



Types of Flight Path	Details
Structural Survey	Produce multi-layered flight paths for irregular facades, used for detailed modeling or inspection tasks of complex structures
Street-aligned	Multi-layered flight paths used for urban redevelopment projects with street-facing facades (eg. archiving of the original and post-renovation structure)
Spiral Coverage	Spiral Coverage Flight Paths encircles point of interest. Suitable for detailed modeling or inspection tasks of complex structures

Partner with Us to Shape the Future

At Tiki3D, we specialise in turning large scale image/LiDAR data into high definition, high fidelity 3D models through our state-of-the-art 3D modeling software for city mapping, advanced aerial surveillance equipment, and powerful processing hardwares. Ourinnovative solutions are designed to help businesses, organisations, and governments to unlock the potential of their cities/infrastructures with unmatched precision and efficiency.

Why Choose Us?

Comprehensive Solutions: End-to-end services from aerial data capturing to processing and analysis.

Proven Expertise: Years of experience in delivering high-quality, real-time data solutions for urban development, security, and infrastructure.

Innovation at Its Core: Continuous development of technology that adapts to the evolving needs of smart cities and large-scale projects

Get in Touch

Partner with us to revolutionise your project with our cutting-edge technology. Whether you are looking to enhance urban planning, monitor large areas, or streamline your data processing, our team is ready to help.

WhatsApp/Mobile: +86 186 2121 8688
sales@tiki3d.com
5/F, Efficiency House, 35 Tai Yau Street, San Po Kong, Kowloon, Hong Kong

Neutral | Open | Compatible

The Trusted Choice of Over 200,000 Professional GeoSpatial Experts.

www.tiki3d.com

LinkedIn

YouTube

WhatsApp/Mobile: +86 186 2121 8688

sales@tiki3d.com

5/F, Efficiency House, 35 Tai Yau Street, San Po Kong, Kowloon, Hong Kong