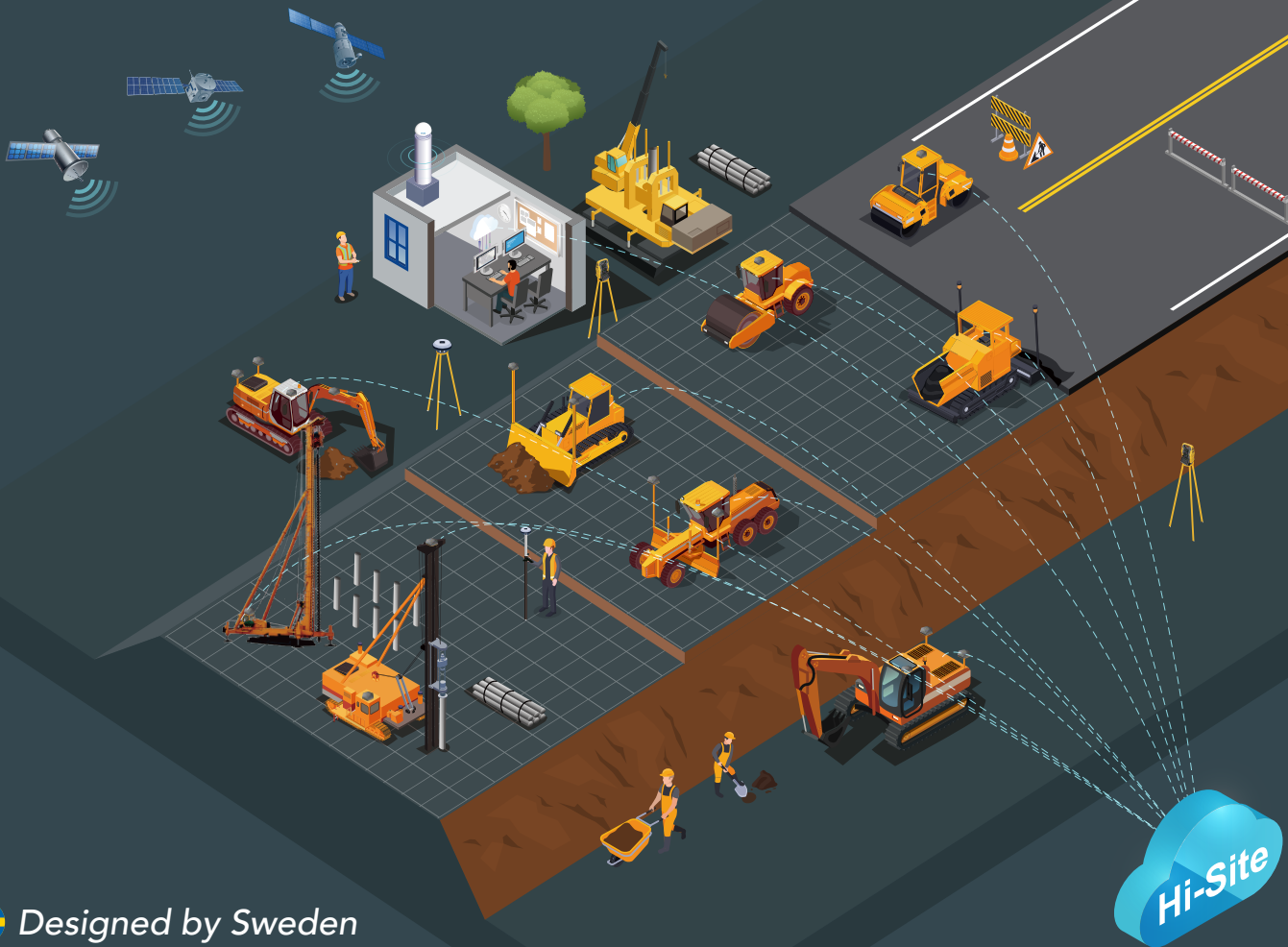


Machine Control Solution for Earth Construction



Industrial Smart Solution

Empower your machines with intelligent control solutions



Simple and Intuitive
User Interface



Quick Installation
and Setup



Reliable and Seamless
Communication



Streamlined
Workflow

Earth Construction

Streamline Your Workflow

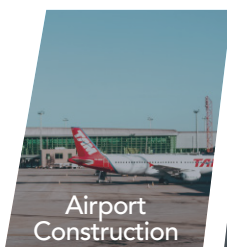
Offering a complete range of high-performance control systems, from excavators to pilers and drillers, these intuitive systems are user-friendly and fully customizable to meet various application requirements. The fully digitized equipment integrates to bring the field to the office, reducing rework and increasing efficiency and profitability.

With a series of high-precision GNSS receivers, angle sensors, compaction sensors, and temperature sensors installed on the equipment, the system uses advanced algorithms to calculate high-accuracy target coordinates from various real-time data sources, assisting and guiding operators effectively.

Higher Efficiency, Lower Cost

| Comparison | Time | Fuel | Productivity | Productivity Improvement Rate |
|-----------------------|---------------|----------------|-------------------------------|-------------------------------|
| ECS-E30 PRO | 29'42" | 11.17 L | 147.67m³/hr | 79.82% ↗ |
| Traditional Excavator | 54'48" | 20.09 L | 82.12 m ³ /hr | _____ |

Applications



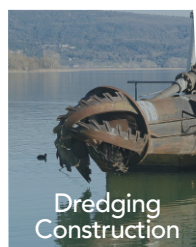
Airport
Construction



Road
Construction



Railway
Construction



Dredging
Construction



Mining
Construction



Harbour
Construction

Excavator Guidance System

ECS-E30 PRO

Maximize the performance of the SatLab ECS-E30 PRO with high-precision positioning and 3D visualization technology to reduce rework and increase efficiency. The system features user-friendly software that allows operators of any skill level to work faster. Even on the most complex excavation projects, the software's visualization helps users work in low-visibility areas, such as underwater or at night.



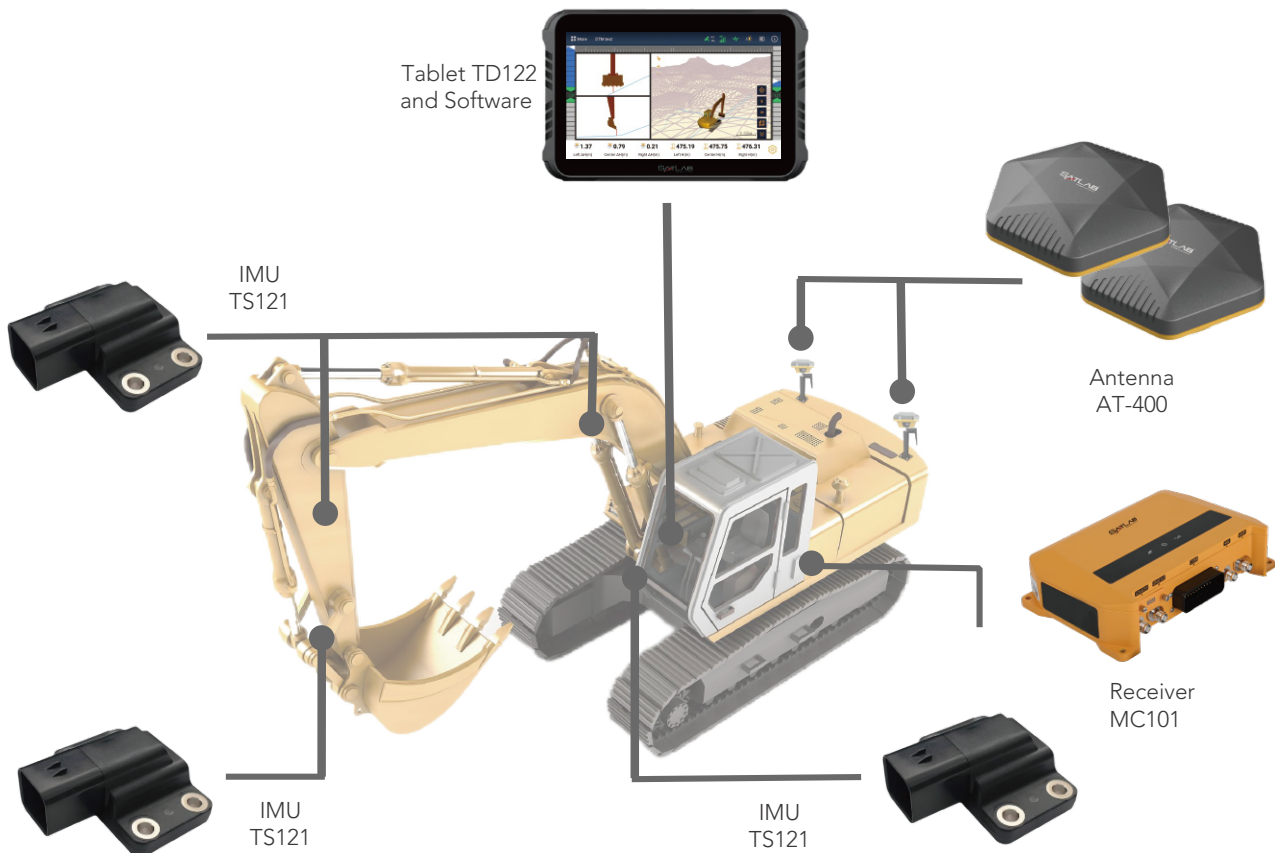
Full Constellation Centimeter-Level Accuracy



6-Axis Sensor



Dual GNSS Antenna



Bulldozer Control System

ECS-D60

- Combined with the bulldozer, the SatLab ECS-D60 system is another essential tool for your projects, enabling efficient coverage and precise control to maximize productivity. With a comprehensive project overview, the system reports the quality of the job area and provides analytics of the sampling points.



Real-Time
Display Pass Track



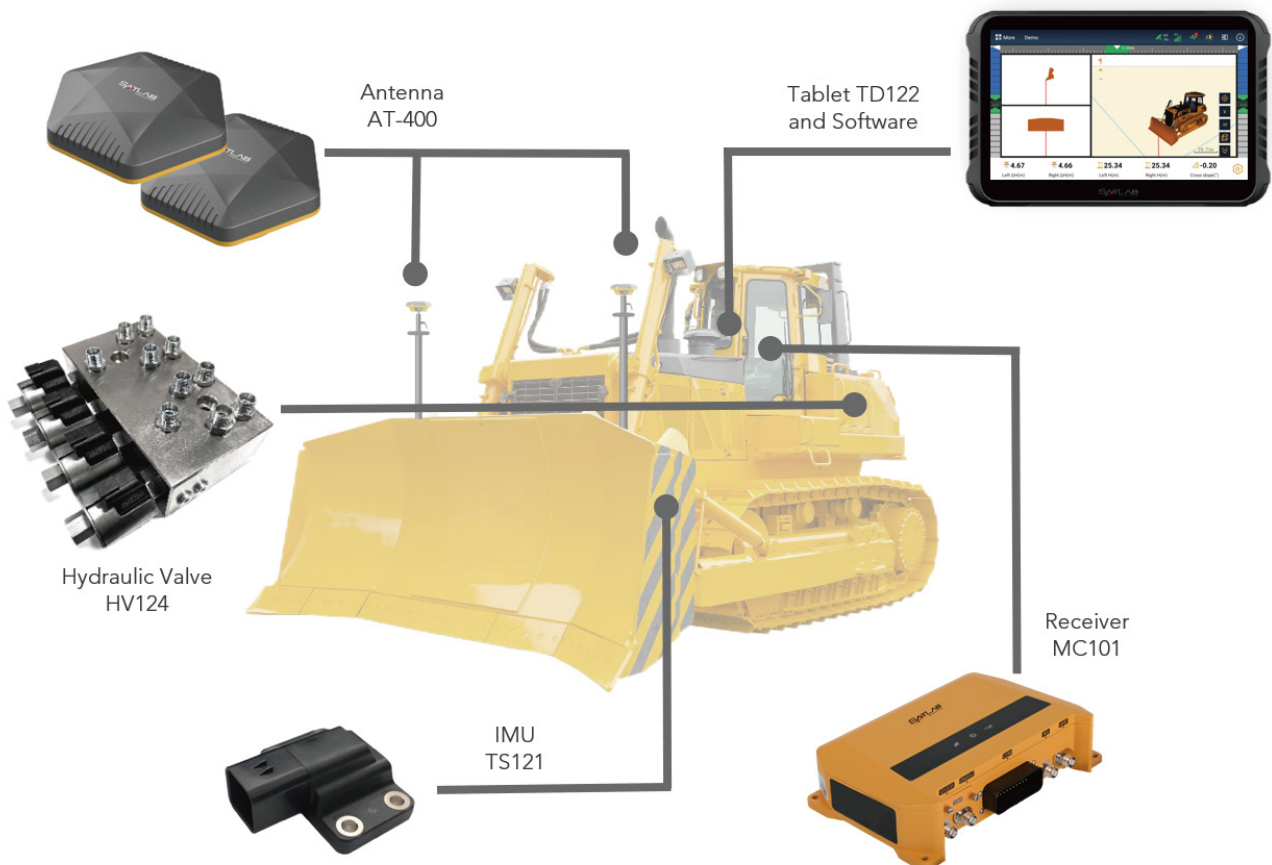
10 Hz Refresh Rate



Global
Satellite Tracking



Rugged Antennas,
Bases, and Cables



Grader Control System

ECS-G60

— The automation of machine control ushers in a new era of grading. The SatLab ECS-G60 integrates the latest in GNSS grade control, digital terrain models, and real-time data processing to enable the grader to achieve accurate grading with minimal manual intervention. This ensures quick construction adjustments, reducing material waste and operating costs.



Centimeter-Level and 0.1°
Heading Accuracy



Automatic
Blade Control



Real-Time 3D
Visual Guidance



Real-Time
Sensor Feedback



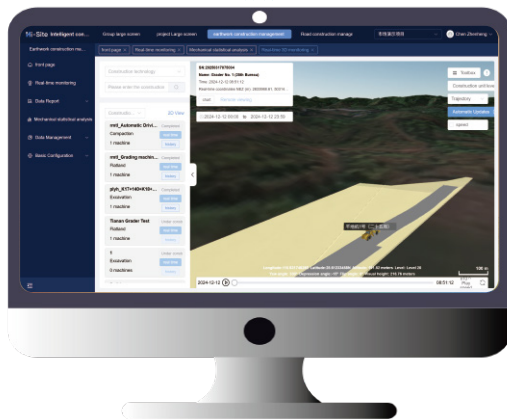
From Field to Cloud

The Complete Software System

SatMC

— Onboard Software

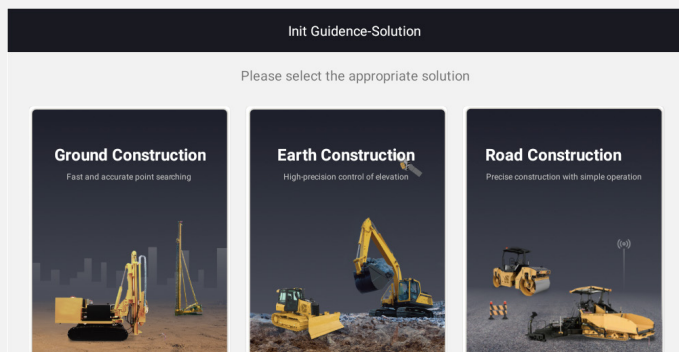
SatMC is the core software for SatLab's machine control system. With a user-friendly interface and powerful project features, it supports seamless integration with SatLab receivers and total stations. One-click project file sharing and intelligent functions streamline construction workflows and boost on-site efficiency.



Cloud Platform

— Smart Project Management

The cloud platform leverages IoT, mobile internet, cloud computing, BIM, big data, and AI to digitally manage all elements on construction sites. This enables lean construction methods and significantly enhances management efficiency for all stakeholders, including contractors and regulatory authorities.



System Settings

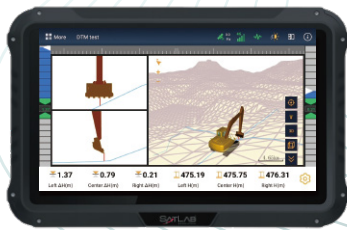
- 3D Design Data Settings
- CAD Plan Settings
- Localization File Settings
- GNSS Correction Information Settings

Device Information

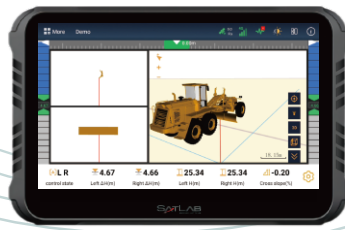
- Operating Status
- Construction Machinery Information
- Remote Construction Monitoring
- Historical Data Download

One Software for All Machines

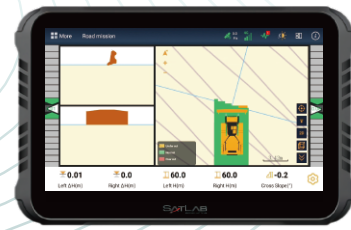
Manage excavators, bulldozers, and graders with a unified intelligent control platform.



Excavator Guidance System



Grader Control System



Bulldozer Control System

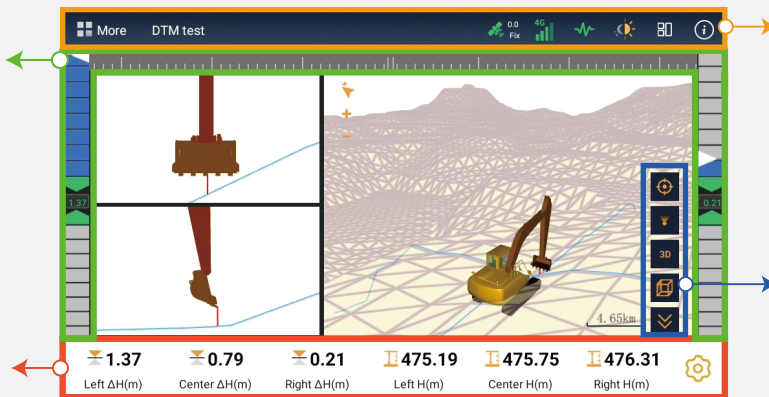
Onboard Guidance Monitor

Indicator Bar

Shows horizontal and elevation deviation from design, with clear tolerance visualization for real-time guidance.

Status Bar

Displays fill/cut status and provides quick access to machine centering, heading lock, 2D/3D switching, and panoramic view.



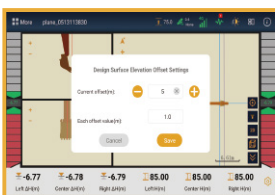
Menu Bar

Displays current task and allows access to task settings, system menu, offset and reference line configurations, and more.

Model Switch

Enables locking the vehicle view, switching between top and front perspectives, and toggling 2D/3D or panoramic display.

Key Features



Elevation Offset

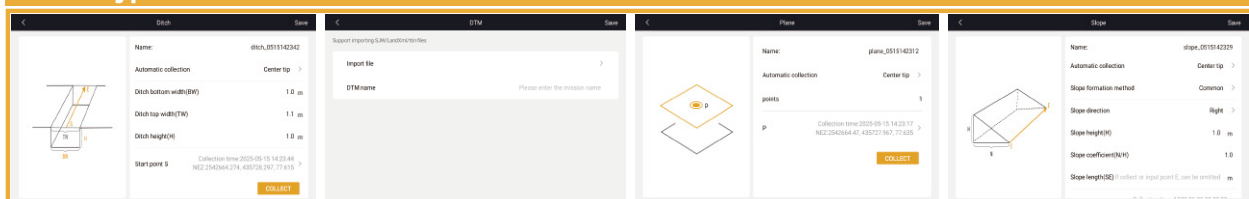
Easily adjust the design surface position by modifying the elevation offset during the construction process, based on the final version of the design documents.



Work Trajectory

Track work performance with the work trajectory function. Share work trajectories with others, and customize the trajectory color to suit your needs.

Multi-Type Tasks



Supports file import in .xml, .dxf (view-only), .sjw, .ttn, and .road formats. Create flat surfaces, slopes, and trenching tasks manually, and deploy design files remotely via the HI-SITE platform.

Technical Specifications



TD122 Tablet

| | |
|------------------|---------------------|
| System | Android 11.0 |
| Display | 10.1" 5-Point Touch |
| Resolution | 1280×800p |
| Dimension(W*H*D) | 281*181*42 mm |
| Weight | 1.5 KG |
| Power | 9-36V DC Input |



MC101 Receiver

| | |
|------------------|--|
| Satellite System | BDS: B1I/B2I/B3I/B1C/B2a/B2b GPS: L1/L2/L5/L6 GLONASS: L1/L2 GALILEO: E1/E5a/E5b/E6 QZSS: L1/L2/L5/L6 SBAS: L1C/A |
| RTK(RMS) | Horizontal: 0.8 cm + 1 ppm, Vertical: 1.5 cm + 1 ppm |
| Network | LTE 4G, WiFi 802.11 a/b/g/n, 2.4 GHz |
| Bluetooth | 4.2 |
| Radio | 410-470 MHz, Channel 116, Editable from 100 to 115 |
| Connector | 4x TNC (GNSS, UHF, GSM), 1x NANO SIM Card |
| Indicator | 3x LED (Satellite, Correction, Power) |
| Dimension(W*H*D) | 220*135*57 mm |
| Weight | 1.5 KG |
| Power | 9-36V DC Input |
| IP Rating | IP67 |
| Environment | Operating Temp: -40 °C ~ +75 °C, Storage Temp: -40 °C ~ +85 °C |



TS121 IMU

| | |
|------------------|------------------------|
| Range | Pitch ±90°, Roll ±180° |
| Static Accuracy | 0.1° |
| Dynamic Accuracy | 0.5° |
| Dimension(W*H*D) | 11*8*4 mm, 14*8*4 mm |
| Weight | 0.4 KG |
| IP Rating | IP68 |



AT400 Antenna

| | |
|------------------|--------------------------------------|
| Band | 1164 MHz~1300 MHz, 1525 MHz~1615 MHz |
| Connector | TNC |
| Dimension(W*H*D) | 156.2*140*55.5 mm |
| Weight | 634 g |
| IP Rating | IP67 |



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