

SOUTH

EGS01

Intelligent 3D Excavator Guidance System

Unleash the productivity of excavator operators!



SOUTH

Contact us for more information

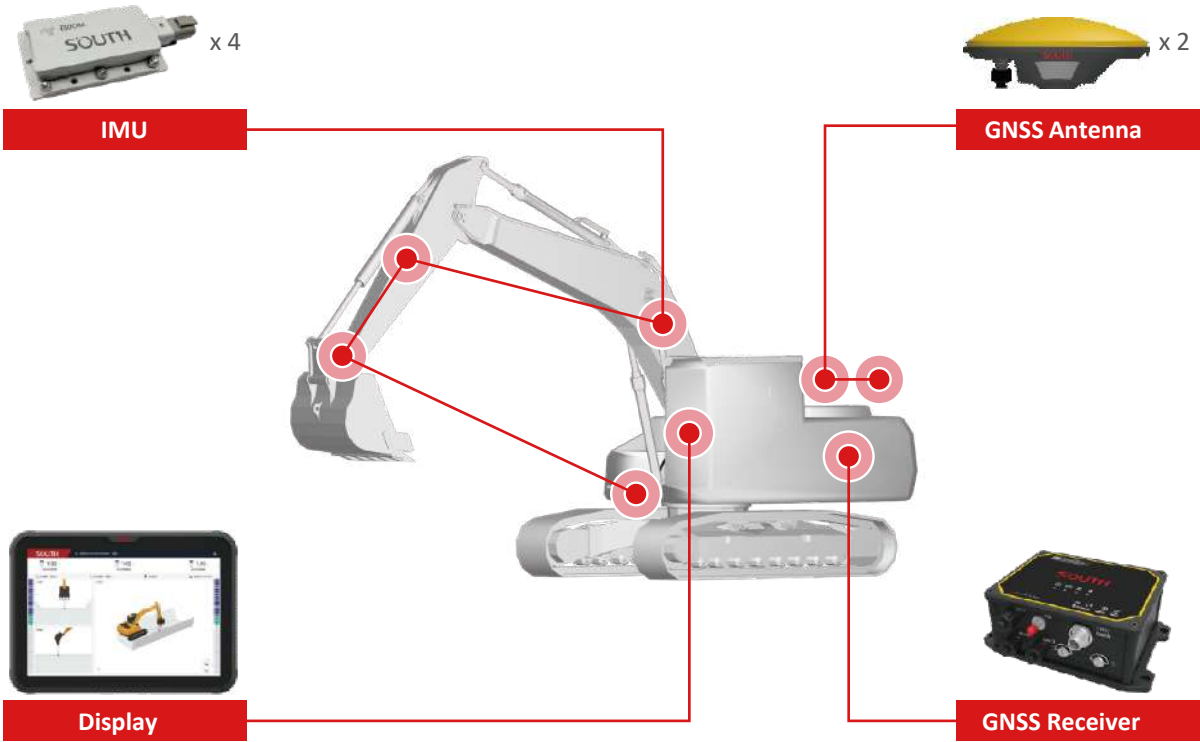
 mail@southsurvey.com

 www.southinstrument.com /
www.southsurvey.com



What is SOUTH EGS01?

SOUTH EGS01 Excavator 3D Guidance System integrates high-precision GNSS and IMU sensing with advanced algorithms to track the excavator’s spatial posture in real time. Based on design terrain data, it generates intuitive 3D visual guidance to help operators achieve high-precision excavation—efficiently, accurately, and safely.





Cost Savings

Accelerate project timelines, reduce labor costs, and minimize fuel consumption.



Boost Operational Efficiency

Minimize unnecessary surveying efforts and eliminate costly rework.



Superior Accuracy

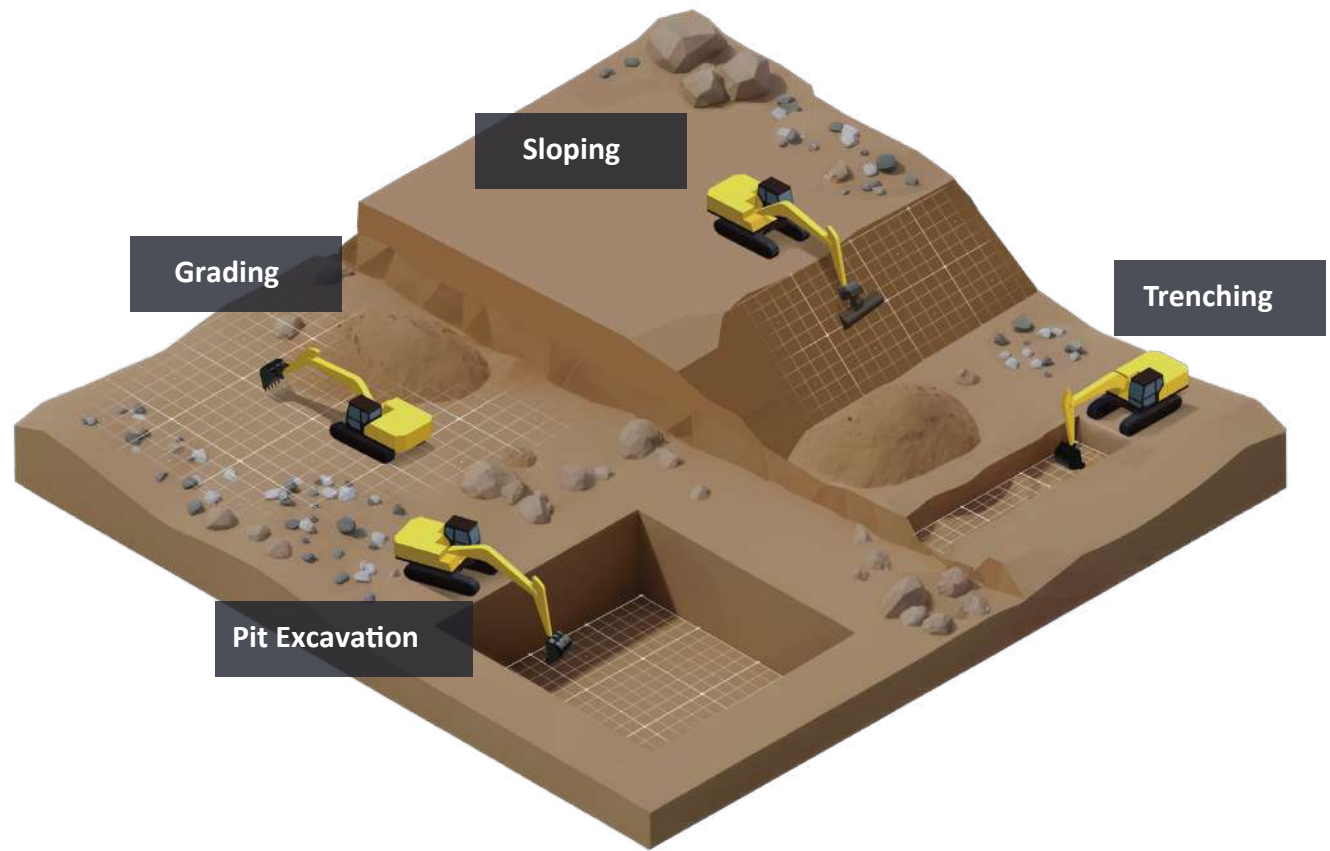
Achieve elevation and horizontal accuracy within $\pm 3\text{cm}$.



Enhanced Safety

Mitigate the risk of striking underground utilities or other obstacles, promoting safer job sites.

Built for All kinds of Job Sites



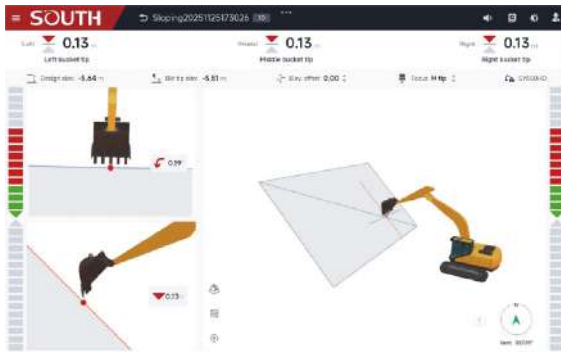
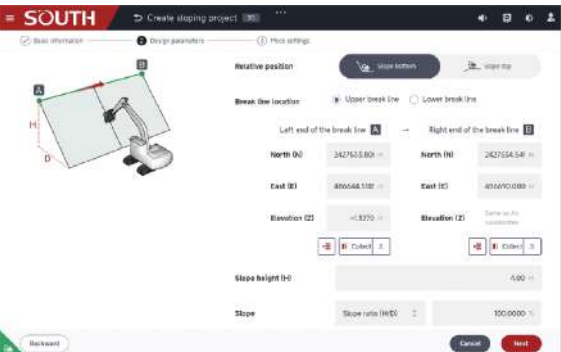
3D Fundamental Features

Included in 3D Standard Version

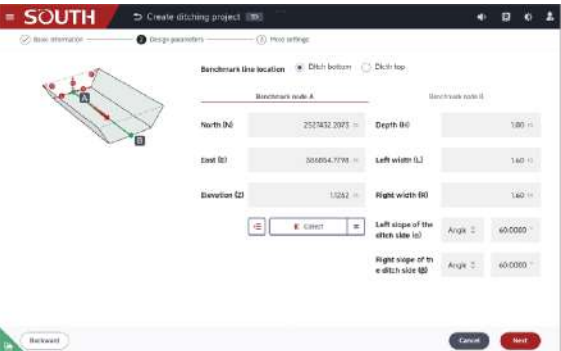
Designed for a range of common earthworks, such as small-scale sloping, trenching, and grading.

Operators set model parameters once, then receive continuous bucket-position feedback relative to design surfaces – preventing over/under-excavation while ensuring spec-compliant outcomes.

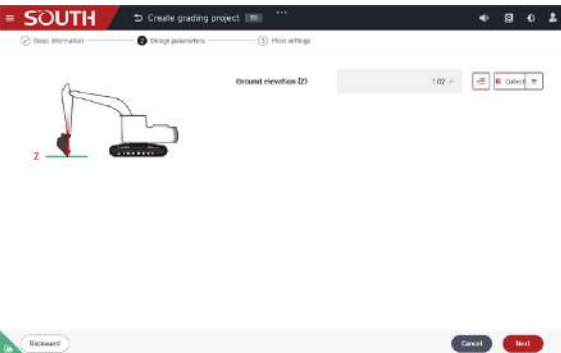
Sloping Model



Trenching Model



Grading Model

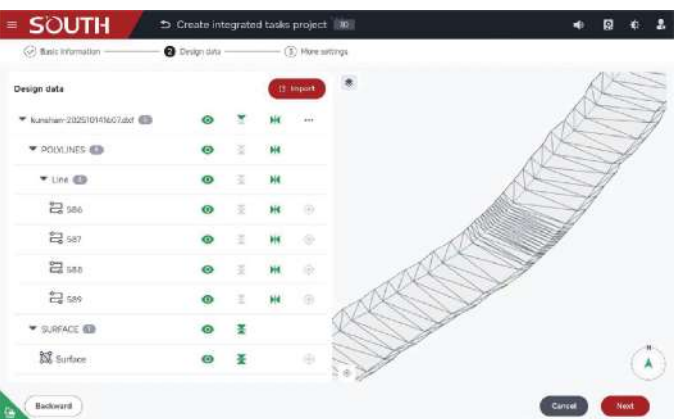


3D Advanced Features

For 3D Premium Version Only

Maximize productivity & profitability on complex projects

Ideal for precision-critical applications including infrastructure development, highway construction, commercial foundation work, dredging operations, etc

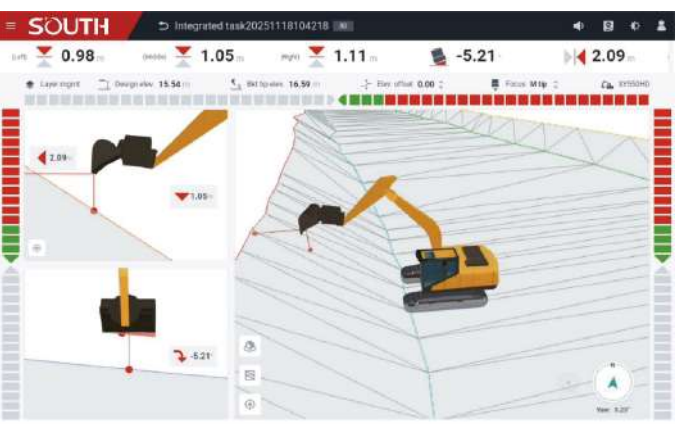


3D Model Import

Supports importing complex 3D surface and line models from design files, enabling continuous real-time, model-based guidance during excavation.

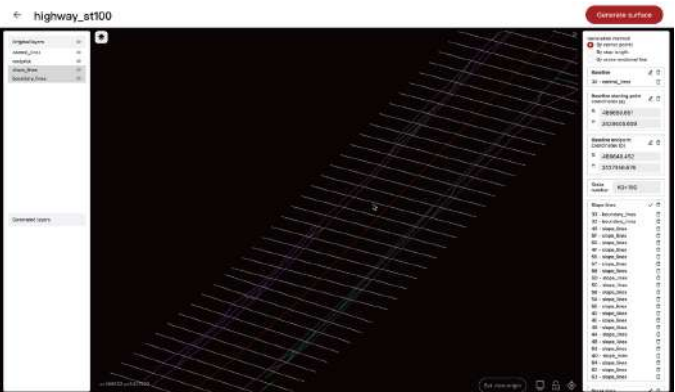
Users can show or hide layers and objects, toggle their use for elevation or horizontal guidance, and apply offsets to objects after import.

DXF and LandXML Supported



Guided Excavation by Design

This ensures high alignment between construction and design intent by guiding excavation directly with the designed 3D model. It provides real-time feedback—including elevation deviation, horizontal distance deviation, and cross-slope angle deviation—resulting in precise excavation that meets specifications, improves quality, shortens project timelines, and enhances overall efficiency.



2D-to-3D Model Conversion

For projects that still rely on 2D drawings as primary deliverables, the cloud tooling enables one-click conversion of 2D drawings into 3D models. This helps traditional projects quickly transition to intelligent construction, especially for centerline-based models such as roads, slopes, and dredging works.

Universal Compatibility for Machines and Attachments



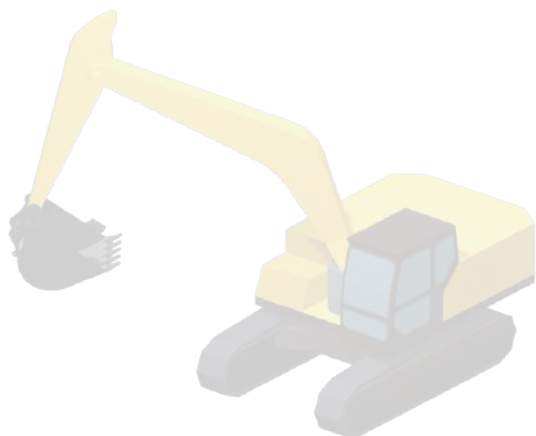
Mono Boom



Dual Boom



Tiltrotator, Tilt, and Rotor



Swing Boom

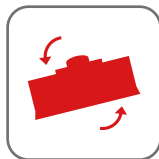
Available in 2026 1Q



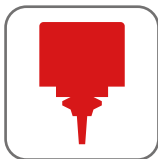
Standard Bucket



Blade



Tilt Bucket



Breaker



Triangle Bucket

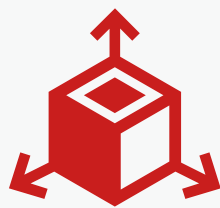


U-shaped Bucket

Adaptable & Seamless Integration

GNSS Positioning

- Differential sources supports SmartNet CORS, Trimble Base, Leica Base.
- Compatible with GPS, Galileo (Europe), GLONASS, and BeiDou satellites.



Coordinate System

- Preloaded with 2,000+ industry-standard templates (WGS84, UTM, etc.), globally available.
- Supports import of .dc, .cal, and .LandXML files.

Cloud Collaboration

- Remote delivery and updates of 3D design files and coordinate systems for multi-machine project synchronization.



Rapid Installation & Calibration

- Install and calibrate in under one hour—ready to work instantly.
- Magnetic mounting, no welding. Guided calibration for all machines and attachments, with export and one-click profile import.