

Trimble Earthworks Grade Control Platform

The next generation of machine control

**FRONTIER
PRECISION**
CIVIL CONSTRUCTION

Trimble
Authorized Dealer

Trimble Earthworks

Control the future

Machine control redefined

The Trimble Earthworks Grade Control Platform offers groundbreaking features. It is designed to help you do more in less time. State-of-the-art software and hardware give operators of all skill levels the ability to work faster and more productively than ever before.

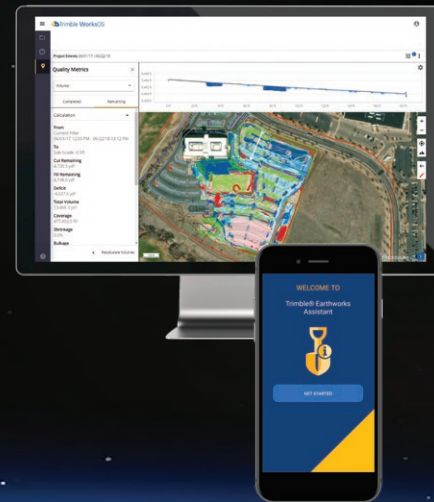
Integrates with Trimble WorksManager and Trimble WorksOS software

Trimble® WorksManager is a mobile-friendly software that easily manages data and technology assets across project sites. It allows you to transfer data files to or from the office wirelessly, automatically ensuring everyone is operating from the latest design. Trimble® WorksOS software monitors live earthmoving and compaction volume metrics, so you can see exactly how much work has been completed, and how much remains. Stay on schedule and work more efficiently with Trimble software solutions, designed to make construction management easier on and off the job site.

Trimble Earthworks Assistant App

The Trimble Earthworks Assistant App* is a stand-alone app that consolidates and simplifies access to training guides and videos inside and outside of the cab. It makes it easy to learn and troubleshoot using an Android cell phone, even from remote sites. The user has access to critical Trimble Earthworks learning material and documentation, allowing for a shorter learning curve and less downtime for operators.

*Available on the Google Play™ Store



Intuitive software

The Trimble Earthworks software was created in collaboration with construction equipment operators around the world, so the interface is optimized for ease-of-use and productivity.

- Colorful graphics, natural interactions and gestures, and self-discovery features make Trimble Earthworks intuitive and easy to learn
- Each operator can personalize the interface to match their workflow using a variety of configurable views
- Files can be transferred to or from the office wirelessly and automatically so you've always got the latest design



Subscribe now

All Trimble Earthworks technology is available as a subscription, reducing your upfront investment in earthmoving technology.

Trimble TD510 and TD540 Displays

- 25.4 cm (10-inch) or 17.78 cm (7-inch) touch color-display
 - Gorilla® Glass
 - Best visibility even in bright sunlight
- Android operating system
- Powerful octa-core processor platform with dedicated graphics processor
- Integrated Bluetooth® and Wi-Fi® for wireless connectivity
- Quick release RAM mounting for daily theft protection removal
- Front facing USB for easy firmware updates and synchronisation of design and productivity data

Trimble® EC520 Electronic Controller

- The processing unit is separated from the display and is permanently installed on the machine
- Integrated Inertial Measurement Unit (IMU) body sensor with 6 degrees of freedom
- Optional integrated Wi-Fi for on-machine wireless connectivity to displays, laptops, hot spots or mobile devices
- 4 GB internal memory for machine data and designs



Trimble® GS520 Grade Sensor

- Six degrees of freedom inertial measurement unit, based on the latest inertial sensor technology and particularly responsive
- 100Hz, 3x axle pitch, 3x axle acceleration
- Compact form factor: mount in any orientation
- Excavator bucket, dozer and grader blades
- Precision locating feature for positioning and re-positioning



Trimble Earthworks for excavators

Introducing undertime

Trimble Earthworks for excavators was the first aftermarket semi-automatic bucket and boom control system and gives your operation many competitive advantages so you can finish on-time and on-budget.

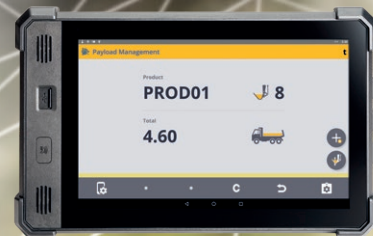
Augmented reality

With the augmented reality feature available in Trimble Earthworks for excavators, operators can view 3D models in a real-world environment at a true-life scale, in the context of existing surroundings. Augmented reality simplifies complex concepts by allowing users to work faster and safer using a blend of digital content and real-world environments.



Payload management integration

Trimble Earthworks has the option to display grade control and accurate payload data on one screen. Increase your mass haul productivity and efficiency by preventing underloading, and improving safety by avoiding overloading. Track productivity with the optional Bluetooth printer and web-based reporting.



Tiltrotator support

Trimble Earthworks works with tilt automatics on engcon®, Rototilt®, and Steelwrist® attachments. The system controls the boom and bucket of the excavator as well as the tilt angle of the attachment, while the operator controls the stick of the excavator and rotation of the tiltrotator.



Various configurations

According to your needs

2D configuration for height and slope - Flexible starter solution for excavation, canal and trench construction, grading and profile work – the start of productivity.

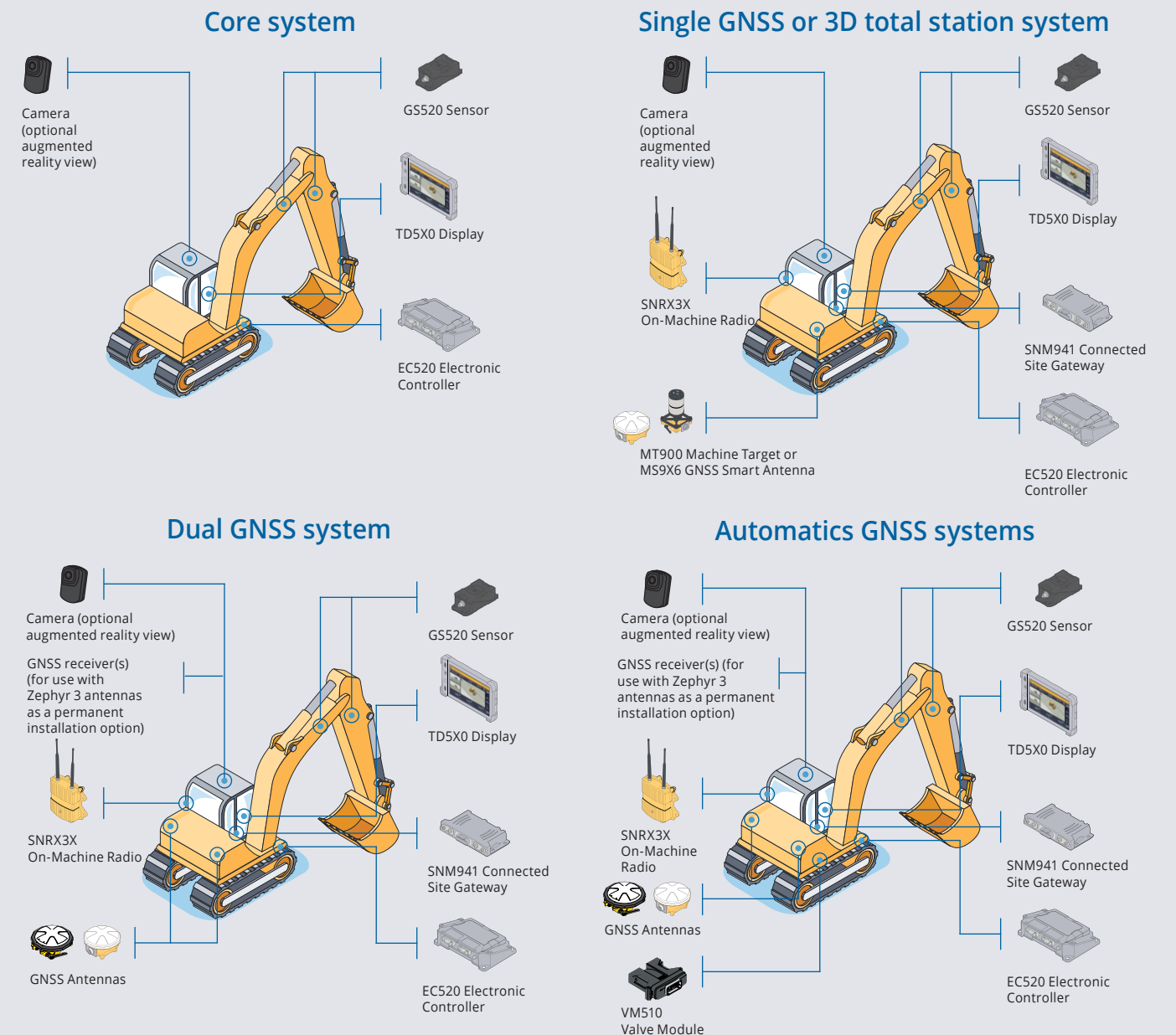
3D single or dual GNSS or UTS configuration - Powerful 3D control system to measure the exact position of the bucket for more complex grading and excavation tasks.

Automatic guidance - Available for a broad range of machine brands and models, the automatic system controls the hydraulics of the machine and achieves high precision in flat or inclined surfaces.

The benefits of automatic functionality increase the productivity of your machine up to 40%.

How it works:

1. The excavator is placed in auto mode
2. The operator controls the stick
3. Trimble Earthworks controls the boom and bucket
4. Stay on grade, reduce overcut and increase production



Trimble Earthworks for dozers

Control the future

Trimble Earthworks offers dozer operators the flexibility to choose between cab-mounted portability and the blade-mount configurations for the supported models.



Machine control redefined

Focus on grade

Horizontal steering control for dozers automatically controls the machine to follow any horizontal alignment such as a back of a curb, breakline, roadway centreline or bottom of slope, without operator assistance. Operators can also manually set up offsets from selected alignments that the machine can follow.

Horizontal steering control allows the operator to focus on the grade, machine productivity and safety rather than worrying about steering, which reduces operator fatigue and errors. It enables the machine to follow the horizontal guidance from the 3D model, providing operators increased awareness of their surroundings, better accuracy and improved productivity—with decreased overlap and fewer passes.

Blade-mount dual GNSS support

The blade-mount dual GNSS configuration allows for a broader range of supported dozer models. This enables older machine models in the fleet to have Trimble Earthworks guidance and control for the operator. The blade-mount GNSS only supports Dual GNSS.

Cab-mounted portability

Trimble Earthworks for dozers mounts dual GNSS receivers on top of the cab to eliminate masts and cables traditionally located on the blade. The dual GNSS receivers are ideal for steep slope work and complex designs with tight tolerances.

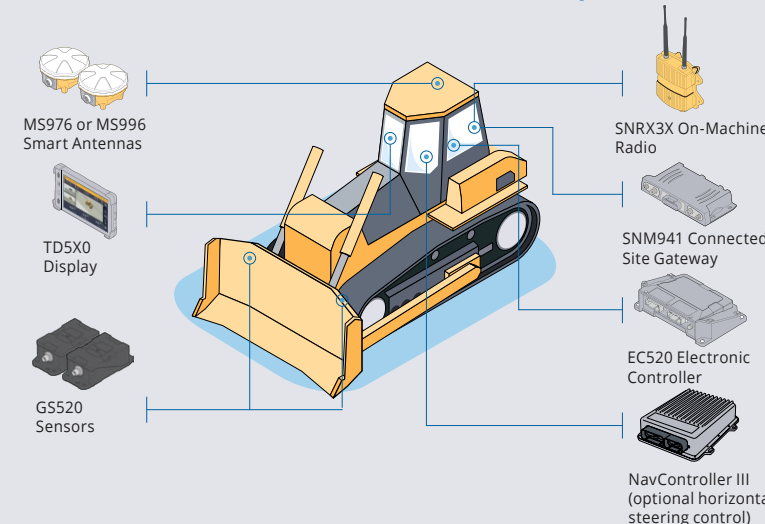
This configuration allows you to easily move the receivers to other machines, to maximise your investment and keep your machines working. Cab-mounting receivers is more convenient and can save you time by reducing the need to reinstall them each day.



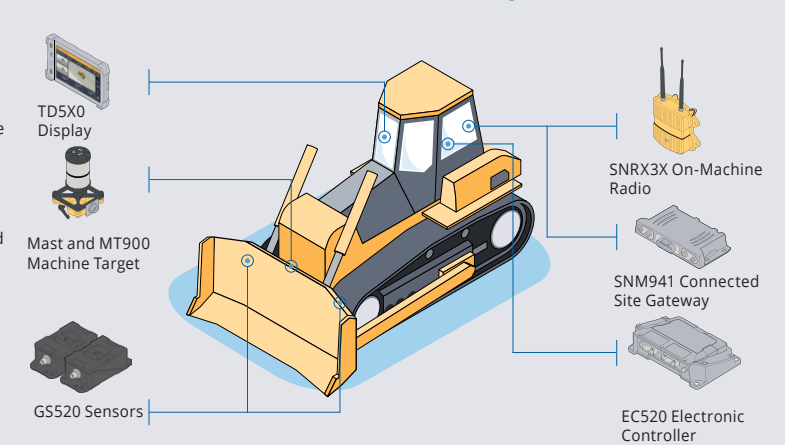
Universal total station system

For supported cab-mount GNSS models, the high-precision blade-mount options for laser and UTS expand machine control capabilities, both for seamless operation in GNSS obstructed environments and for tasks requiring higher precision than a GNSS-guided solution alone.

Cab-mounted dual GNSS system



Universal total station system



Trimble Earthworks for graders

Running on time

Trimble Earthworks for motor graders helps operators of all levels leave a quality surface. This next generation system with a familiar Android user interface, and user-friendly 25.4 cm (10-inch) touch screen cuts the learning curve, improves operator capabilities, and gives you a first-pass finish that's second to none.



Leave a finished grade

The first time, every time

Single / dual GNSS accuracy

Dual GNSS provides real-time position and heading of the machine for guidance of the motor grader blade in 3D, enabling faster reaction times and enhanced performance. The IMU-based system offers even better GNSS performance, for more accuracy and stability. The platform supports multiple correction services, including VRS and Internet Base Station Service (IBSS). And when a correction source is temporarily unavailable, the Trimble® xFill® feature will fill in the gaps to maximise up-time.

Mastless flexibility

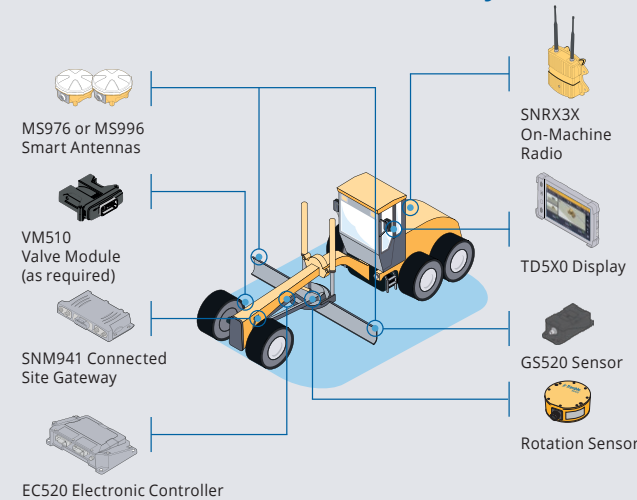
Trimble Earthworks for motor graders enables a mastless GNSS configuration for supported Cat® motor grader models.

This mounts one GNSS receiver on the cab and the second GNSS on the gooseneck of the machine to eliminate masts and cables traditionally located on the blade. The mastless GNSS configuration is ideal for applications to enable the blade's maximum range of motion such as steep slope work and complex designs that need to be built to tight tolerances. It also decreases risk of damage to the machine and reduces the time needed to remove and reinstall GNSS receivers each day.

Legendary precision with UTS

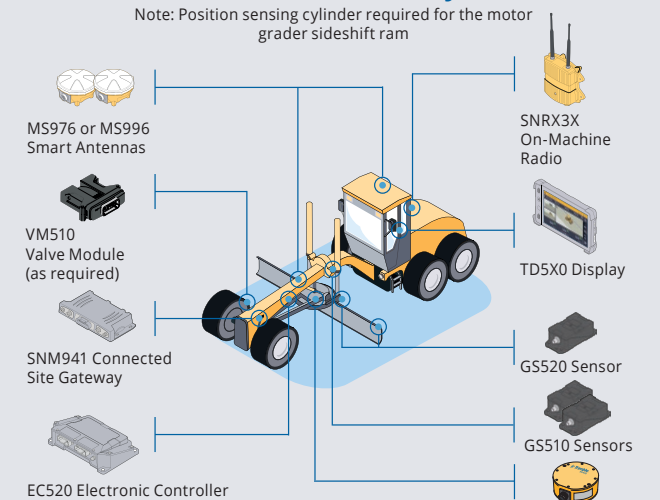
Trimble Earthworks for motor graders with Trimble universal total stations is THE configuration for finish grading with fewer passes. Contractors can place finished grade materials more accurately and in a shorter time period, keeping material costs to a minimum and improving productivity.

Blade-mounted dual GNSS system

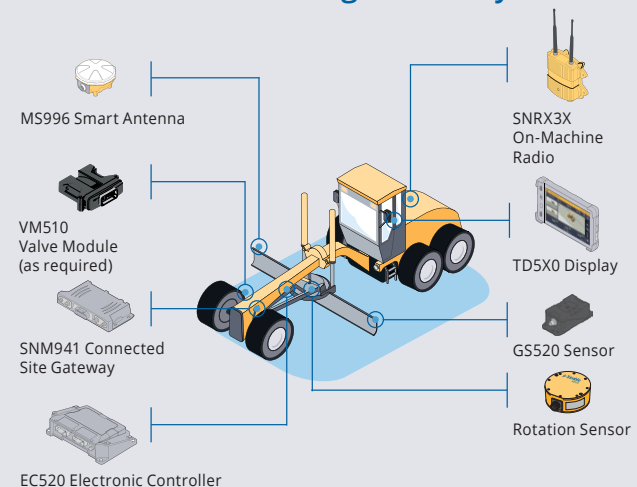


Mastless dual GNSS system

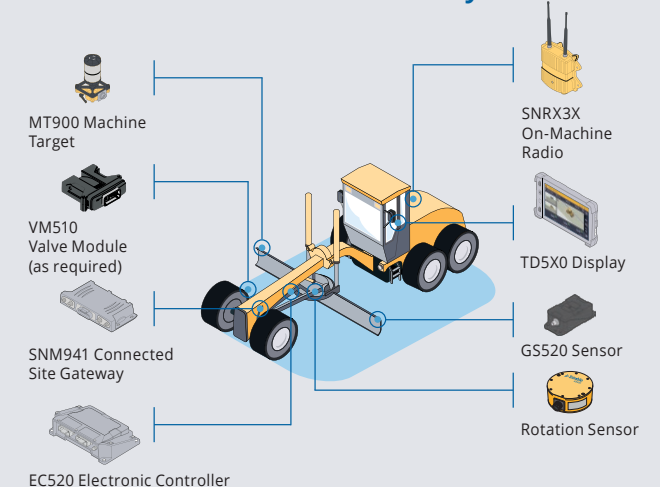
Note: Position sensing cylinder required for the motor grader sideshift ram



Blade-mounted single GNSS system



Universal total station system



Trimble Earthworks for compact machines

Trimble Earthworks is also available for compact grading attachments with single/dual GNSS, single/dual laser, single/dual sonic and total station guidance options. It provides a tailored 3D solution for applications such as site projects where full size grading machines are unable to operate in the confined environment or for the contractor looking to expand opportunities for 3D machine control jobs.

The operator user interface remains consistent with larger machines:

- Compact loader and attachment icons for the brand of grading attachment
- Supports TD5X0 display and your own device
- Office and in-field design support

Dedicated software licence options and alternative hardware configurations allow for easier installation at lower expense.



Small machines, big potential

Made for your small machines

Trimble Earthworks for compact machines delivers on the needs of your small machines.

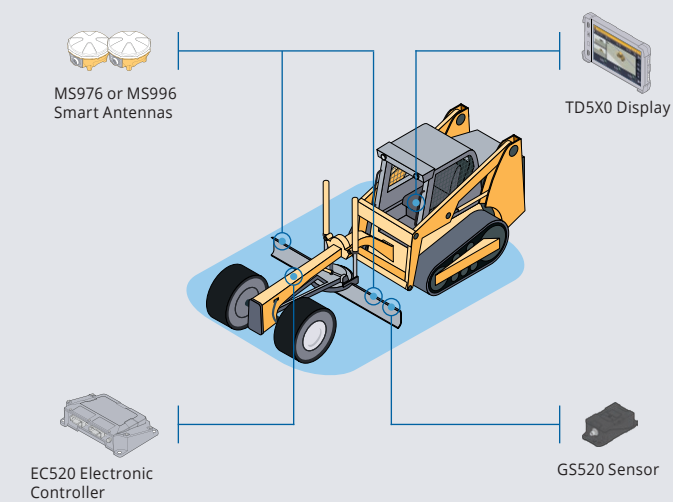
Offering a wireless connection to the machine display for maximum flexibility, as well as compact machine-specific interface elements, Trimble's latest offerings will help you maximise the productivity of your small equipment.

Options to get the job done right

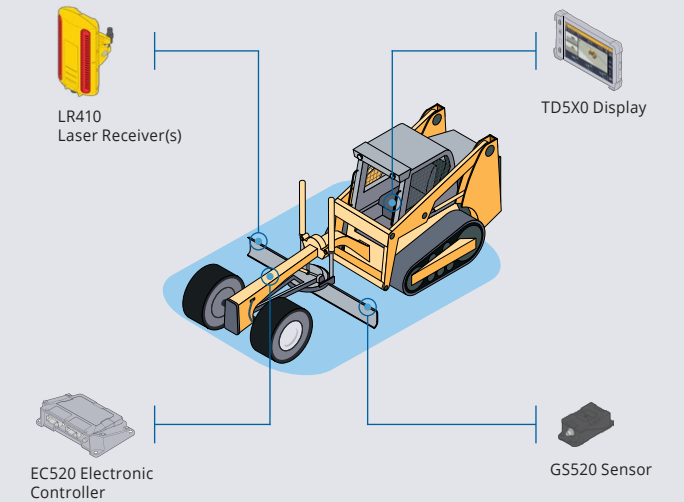
Trimble Earthworks for compact machines gives you a variety of sensor options to meet the needs of your next job.

Offering GNSS based systems, as well as universal total station and laser options, we have what you need whether flexibility or the ultimate level of precision is your goal.

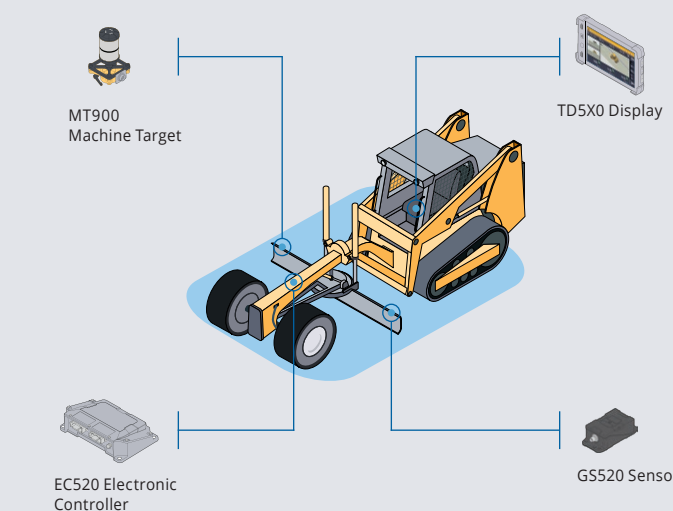
Blade-mounted dual/single GNSS system



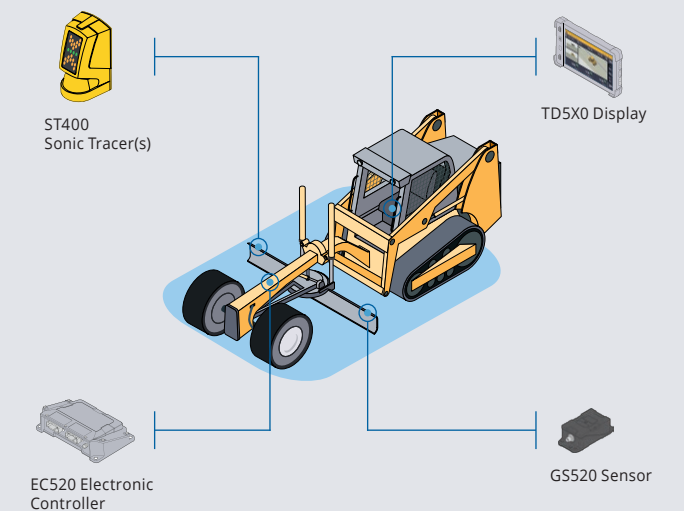
Dual/single laser system



Universal total station system



Dual/single sonic system



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