#### 역 SMART CONSTRUCTION Retrofit

Equip your mixed fleet with 3D Machine Guidance. A fast and cost-efficient way to enable your conventional machines to collect as-built and payload information.



## A compact, easy-to-install 3D Machine Guidance

Smart construction Retrofit allows 3D machine guidance to an existing hydraulic excavator, no matter the OEM. With our multi-constellation GNSS system, you can achieve high position accuracy even in harsh environments, minimizing the need for in-field surveying. An easy-to-install kit that allows you to upgrade your conventional machine within one day\*.



- 🏠 Multi GNSS (GPS, Glonass, BeiDou, Gallileo)
- > Network RTK or base station correction
- Decordinate Systems and localization
- Display 3D design data
- ♦ Heatmap of design cut/fill
- Assign vertical or perpendicular offset

- Create simple in-field design data (flat, slope, dual slope)
- Extend grade of surface
- **v** Correction Data: RTCM3x and VRS (CMR Coming soon)
- Cloud and USB/SD card file transfer
- ♦ 2D Guidance Available
- Compatible file types: Land XML, DXF, Topcon formats\*\* Trimble formats\*\*



#### **Pilot Web and Pilot Tablet application**

With the Pilot Web application, you can directly transfer 3D design data to the in-cabin Pilot Tablet, backup files, download remotely 3DMG topo points and specific as-built data and finally monitor operator daily benchmarks and support operator from your desk.

Image: Second systemImage: Second systemI

\*\* As per 10 November 2022, we cover all of the formats (except LN3 and PT3). Our coverage is subject to change.

<sup>\*</sup> In practice, installation time depends on machine type and technician's experience.

SMART CONSTRUCTION Retrofit

A Machine Guidance kit enabling your standard machine to collect as-built and payload information

Being part of the integrated Smart Construction ecosystem makes any solution we release unconventional. The same goes for our Machine Guidance kit. The goal? Gather jobsite data straight from machines to allow site or project managers to analyze terrain, material, machine, and operator information. Bring actionable insights to your daily operations. Smart Construction Retrofit Kit gives your conventional fleet a second "smart" life, where machines not only construct accurately towards the design but also collect accountable as-built and payload information while they are getting their job done, adding an additional information source next to rover and drone data.



# Instantly acquire machine as-built data

While operating on a project using 3D digital design, as-built information is directly collected from the machine. This as-built data can be visualized in Smart Construction Dashboard, allowing automatic update of the terrain. Change in topography can also be visualized on the in-cabin screen using Pilot Tablet.

Connect Smart Construction Retrofit with Smart Construction Dashboard to enable as-built data visualization and project progress tracking.

### **Payload Meter**

Make use of Payload Meter to accurately measure the weight of soil loaded in the bucket or in the truck.\*

- Truck and payload history
- Overloading alert
- Display truck list
- Easy and fast calibration
- Use payload by itself or combined with 3D MG

### Track load counts and volume moved

Smart Construction Fleet combines payload data with logistic information. In addition to the weight of soil loaded in the bucket, you can also find out when and where the excavator empties its bucket into a dump truck and the total amount of soil loaded in the truck.

- Easily track load counts and volume moved
- Gain insights into your productivity
- Promote proper loading weights for on- and off-road vehicles to prevent overloaded trucks

Connect Smart Construction Retrofit with Smart Construction Fleet to enable material tracking and payload reporting.



## Part of the integrated Smart Construction ecosystem

Integrated into the whole Smart Construction ecosystem, Smart Construction Retrofit works as an IoT tool gathering data from terrain, machine, and material. Depending on our customers' needs, these data can go straight into our family of solutions for further analysis to help companies optimize their daily operation and decision-making.





# **Standard Hardware Kit**

The standard kit is available in different sizes: From a small 8 ton, up to a 50-ton machine\*

| 4x IMU sensor                              | WIFI router      |
|--|------------------|
| 2x GNSS antenna                            | Wiring harnesses |
| Controller                                 | Brackets         |
| Smart Construction Pilot Perpetual License |                  |
| Installation material                      | Carry Case       |

#### **Additional Hardware Kit**

**Tablet Kit Option** 

Ruggedized tablet

Suction mount

Docking station

Power lead

Tilt Bucket Kit Option

IMU SENSOR

Wiring harness

Brackets

Installation material

SATEL Radio Kit Option

SATELINE 3AS

Magnetic antenna mount

2x Radio antenna

# **SMART CONSTRUCTION**

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