Smart Construction Pilot Flex v1.7.0 feature improvements





Changes and Added Features

Main Items

- 1.Added function for individual vehicle IMU calibration
- 2. Changed layout of the positioning screen
- 3. Partially redesigned the vehicle calibration screen
- 4.Display of left/right vehicle elevation and design surface difference on the front guidance screen
- 5.Display of extended vehicle width red line (top view)
- 6.Added vehicle model (tractor)
- 7.Display of vehicle pitch and roll angles
- 8. Transparency settings for the vehicle model
- 9.Changed the setting location for Ntrip V1/V2

Others

•Other bug fixes and specification changes

Ж EARTHBRAIN 1. Added function for individual vehicle IMU calibration

A function for individual vehicle calibration has been added, enabling cancellation of IMU sensor installation errors in the pitch and roll directions of the vehicle.

Note

When performing calibration, work must be done on a stable surface such as a concrete-paved area or solid ground where the footing remains undisturbed even when the vehicle turns.





In the positioning screen, in addition to displaying the current position coordinates, it is now possible to display the coordinate differences from control points.

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~	+
E Z 22739.500 m	3.888 m
RL RR	U
E Z	3 436 m
22101.110	3.430
Reset	Matching
E Z	0.000 m
	E Z 22739.500 m RL RR E Z 22784.776 m Reset E Z 0.000 m

Old



15



In the vehicle calibration's tape measure measurement, part of the design has been changed to clearly indicate positive and negative (+/-) input values.





From the application settings, it is now possible to display the left and right elevations of the vehicle width and their differences from the design surface on the front guidance display.





From the application settings, extended lines for vehicle width can now be displayed on the top-view guidance screen.

Target Surface Extension	ON OFF	Z+003.60 m	4. ¹
Light Bar Size	[Medium ~]		20 °
Linework Thickness	Normal ~		
Linework Thickness For Minimap	Normal ~		
Minimap Size	Small ~		
Minimap Range	[100.000 m]		
Surface Range	60m × 60m ~]		
Machine Width Line	ON OFF		
Machine Model	Bulldozer	H	
Elevation	ON OFF	\$	
Distance to the design surface	ON OFF	^] -€ + 00.00 m	



From the application settings, a vehicle model (tractor) has been added. **Note**

The vehicle dimensions will use the calibration values from the original bulldozer or rigid dump truck model.

Application Settings			-77 -77
Target Surface Extension	ON OFF	Z+003.42 m	de ON
Light Bar Size	Medium V		
Linework Thickness	Normal V		+1.000
Linework Thickness For Minimap	Normal V		
Minimap Size	Small V		
Minimap Range	100.000 m		
Surface Range	60m × 60m ~		
Machine Width Line	ON OFF		×
Machine Model	Bulldozer		-1.000
Elevation	Tractor		
Distance to the design surface	ON OFF	A + 88.88 m	
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On the guidance screen, vehicle pitch and roll angles and slope percentage (%) can now be toggled at will by tapping the screen.







On the guidance color settings screen, the transparency of the vehicle model and the front guidance display frame can now be freely adjusted.





The Ntrip client version setting has been moved to System Management > Basic Settings.

System Configuration	
Basic Info	Mede
Controller info	
License Info	
Terms Of Service	
Sensor Data Monitoring	
System Log Upload	

Basic Settings	
WiFi SSID	
WiFi Password	[]
Connection IP	[192.168.128.254]
Connection Port	8080
GNSS Receiver Connection IP	192.168.128.254
GNSS Receiver Connection Port	55556
Ntrip Client Version	Ver2 ~]
UDP Connection IP	[~ Ver2 _ 192.100.120.200
UDP Connection Port	50000
4	