FJ DYNAMICS

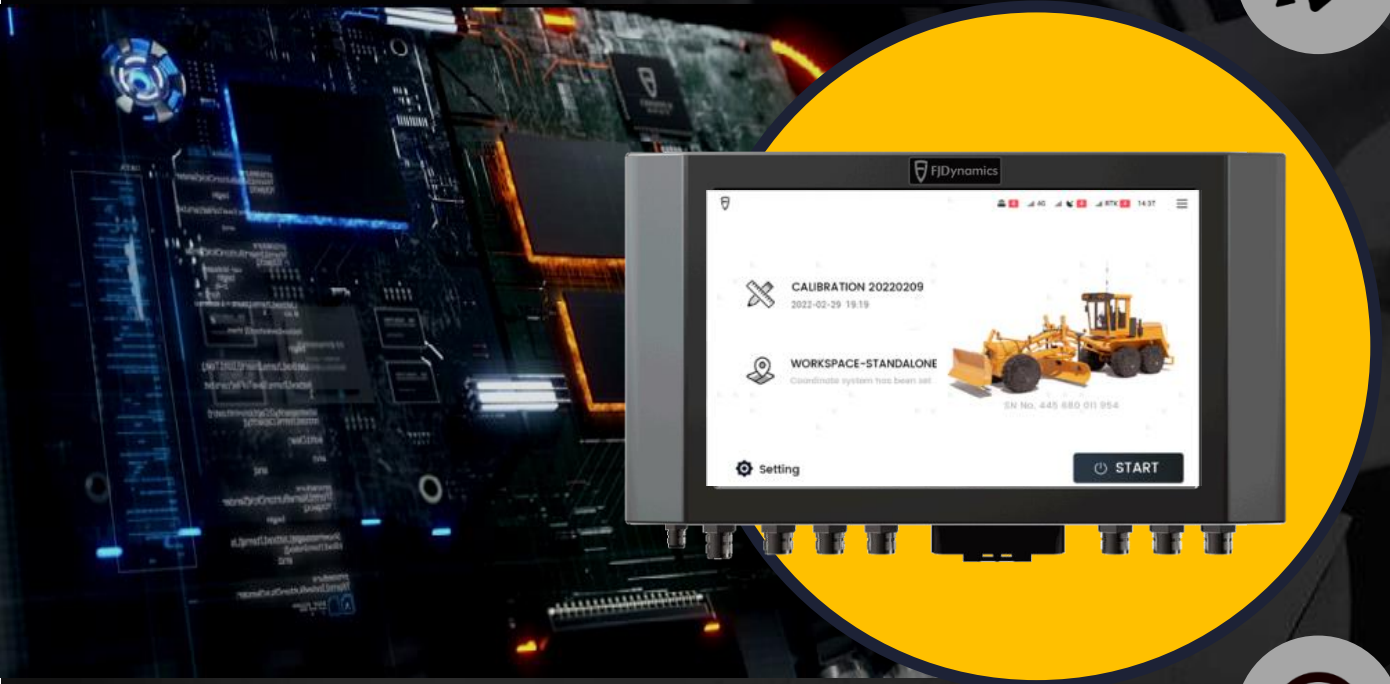
FJDynamics H36
3D Motor Grader Control System

Make an Accurate Grade in One Go

3D Motor Grader Control System

FJDynamics H36 3D Motor Grader Control System can obtain real-time working position and attitude data based on the high-accuracy satellite positioning technology and multi-type sensor modules. It can adjust the blade automatically for accurate grading.

FJDynamics H36 – Features



Automatically controls the blade for grading based on both the 3D design model and the actual terrain

Provides 3cm operation accuracy for a wide range of applications, and delivers higher quality grading

Presents key indicators in intuitive views, ensuring a smooth workflow

Operates with no stakes, cutting labor costs and improving work efficiency

FJD 3D Motor Grader Control System

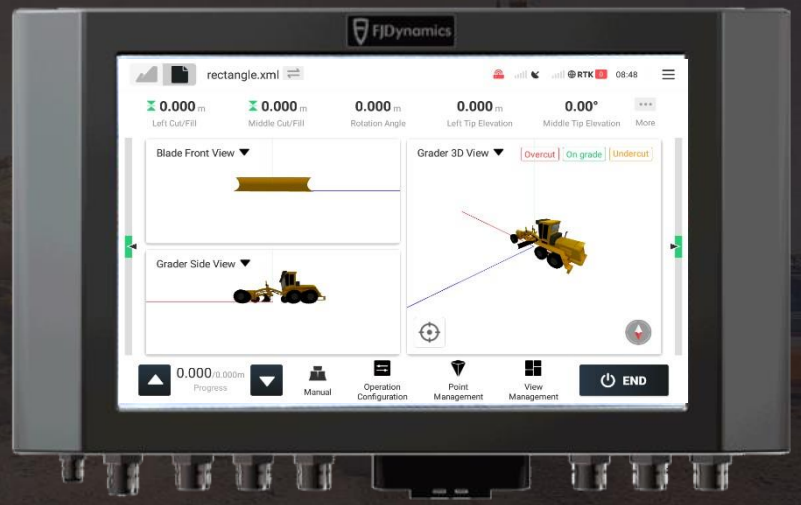
Advantages

3D Visual Guidance

Satellite Positioning Technology

Multi-type sensor modules

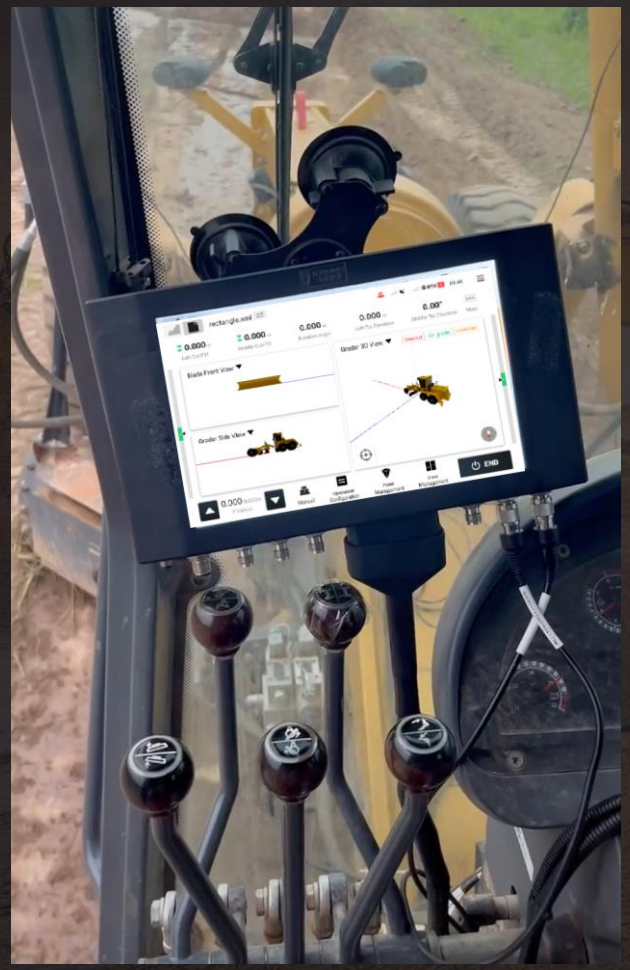
3D Visual Guidance



FJDynamics developed 3D models multi-type sensor modules and RTK centimeter positioning technology to acquire high-precision excavator attitude data and complete accurate construction with 30mm accuracy.

Innovative 3D visual guidance technology assists construction through real-time animation. No more repeated measurement and rework required.

Advantages



Real-time
Operation

Task Visualization

Design File Import

Datum line Guidance

Datum line assistance enables operators to acquire the height and position of the blade more intuitively so that they can accurately complete each grading with higher efficiency.

Check task progress such as slope, depth and construction reference points through construction drawing conversion software.

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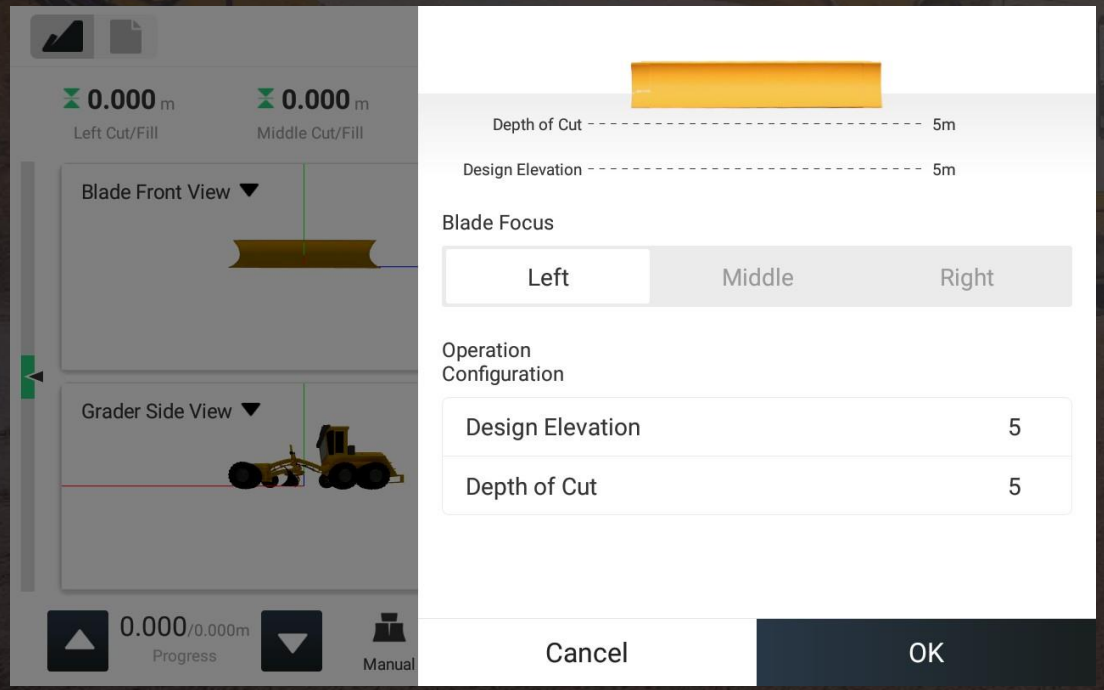
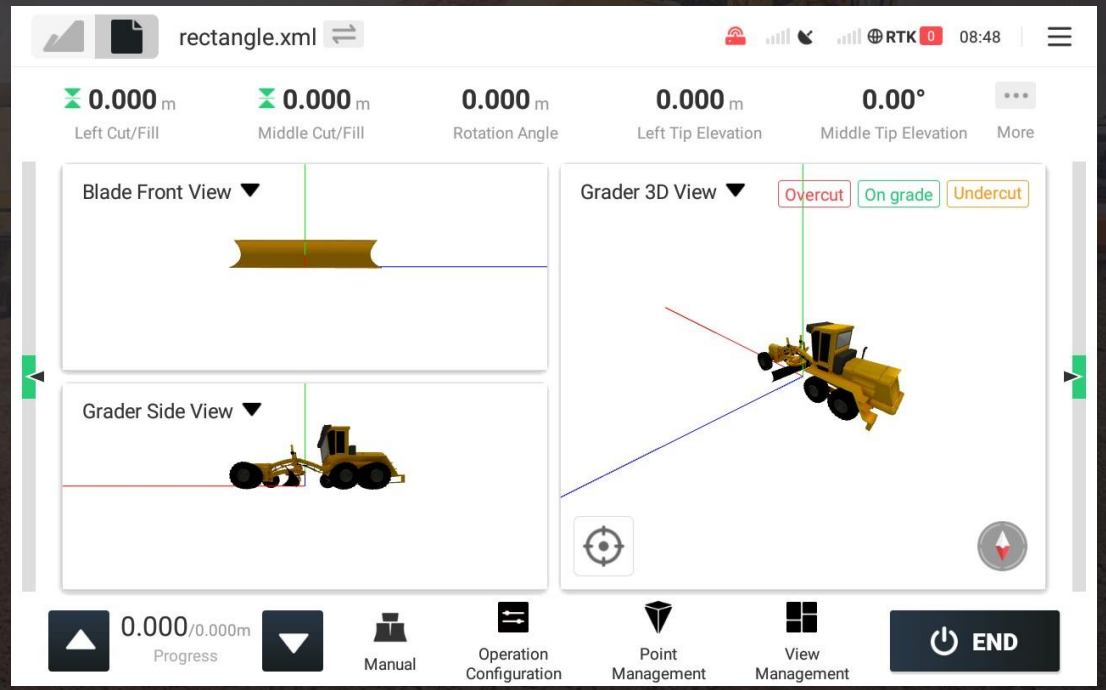
Task Modes

1 Depth/Elevation Mode



2 Design File Mode



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Advantages

Automatic control

Smooth as Ever

Collect the spatial 3D coordinates of the blade in real time through GNSS technology and compare them with the design file. If deviation is found, the system will automatically adjust the blade through the valve control module.

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Application Scenarios

Large Site Leveling

Sports field/ stadium construction

Airport construction

Residential site construction

Road Construction

Highway and construction

FJD 3D Motor Grader Control System

Customer Value

Reduced Cost Fast and high-precision construction and molding, reduce rework and repetitive measurement, save cost and manpower in time.

Improved Quality High-quality construction with 30mm accuracy, suitable for difficult projects, project visualization, real-time control.

Safety Precise 3D automatic control of blade, reduce cost in manpower, avoid safety hazards.

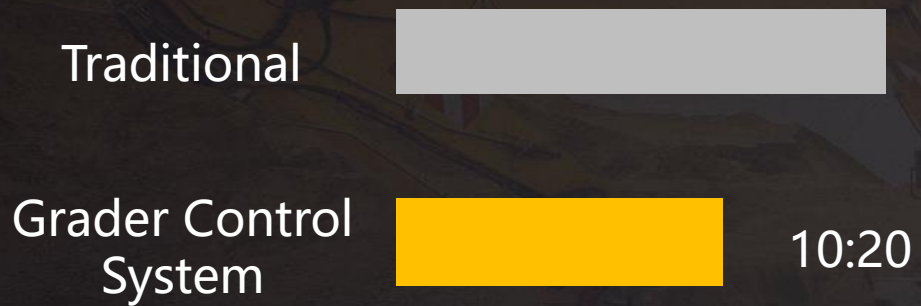
Simplicity Easy to operate.

FJD 3D Motor Grader Control System

Customer Value

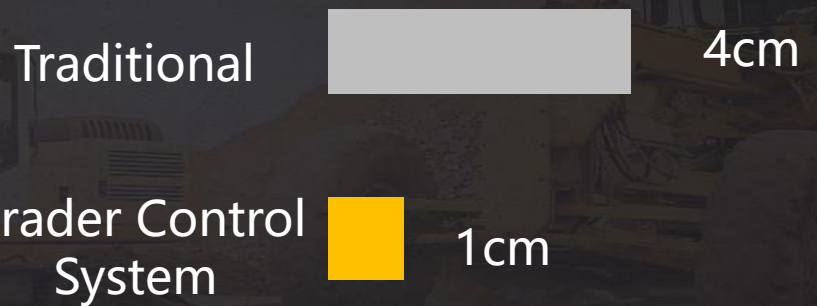
Based on a 3D grader control systems test on one kilometer of gravel road base (8 meters wide)

Working Hours



Time Saving: 33%

Operation Accuracy



Saved Volume of Material:

(0.04-0.01) x 8 x 1000 = 240 m^3/km

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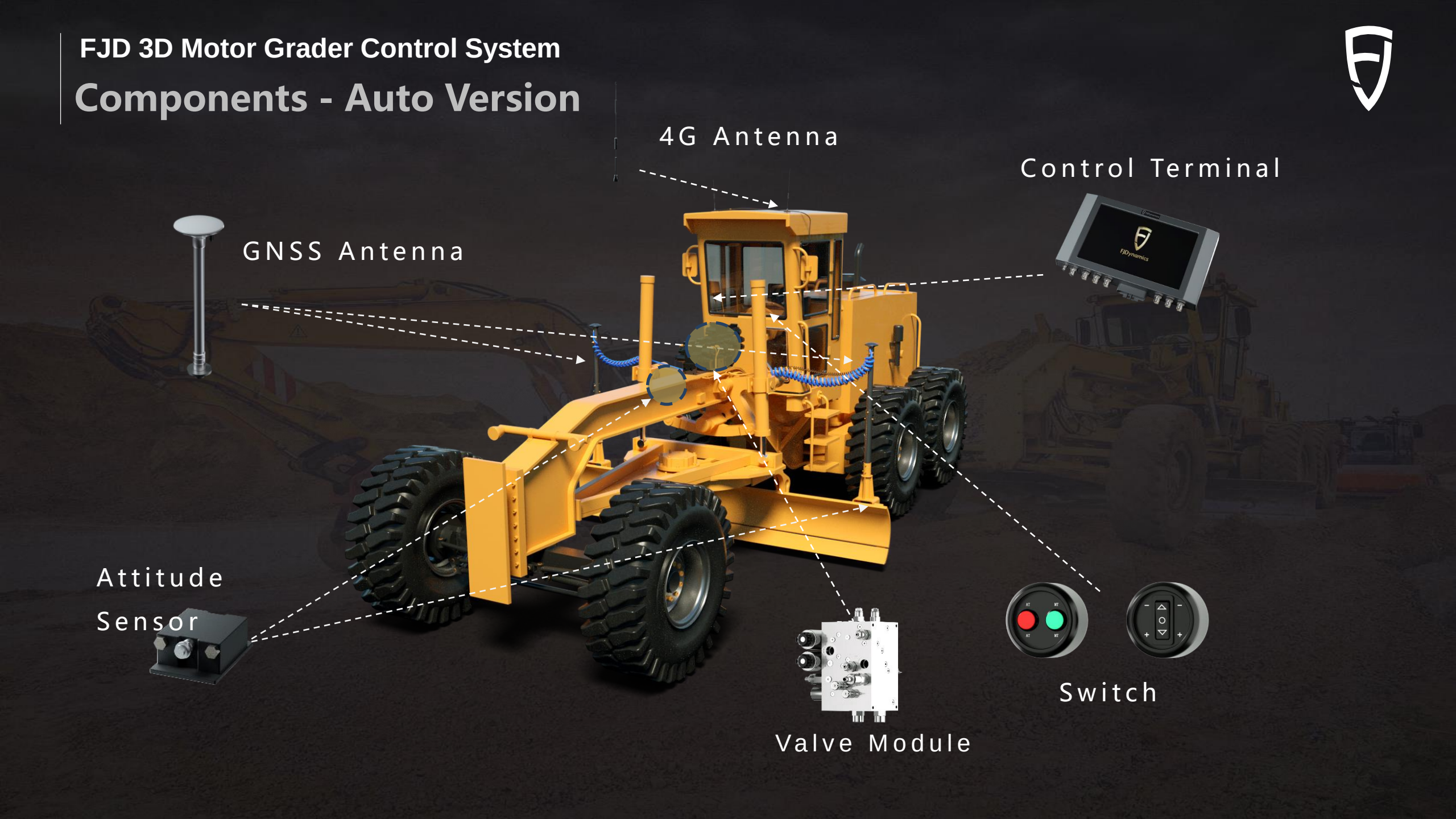
Components - Auto Version



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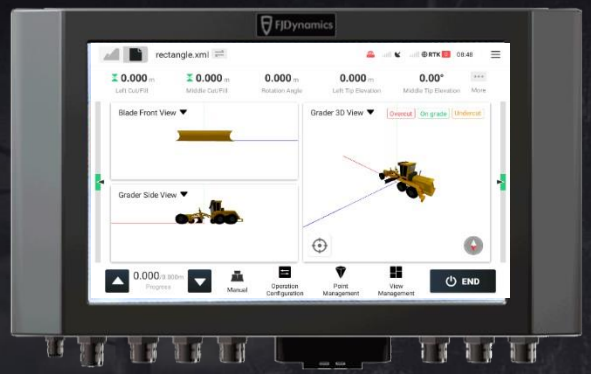
Specs – Components



Control Terminal

Size	300x190x43 mm
Screen	10.1 LED Touchscreen
Signals	Radio, Positioning Satellite, 4G
Working Temperature	-30℃ - +70℃
Waterproof Rate	IP65
Power Supply	9-36 V

Attitude Sensor

Range	Pitch ±70°, Roll ±180°
Max Angular Velocity	≤ 400°/s
Working Temperature	-40℃ - +85℃
Waterproof Rate	IP67
Power Supply	4.9-32V

GNSS Antenna

Frequency Range	GPS L1/L2, GLONASS L1/L2, BDS B1/B2/B3
Working Voltage	3.3-12 V
Working Temperature	-40℃ - +85℃

User Cases

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THANKS

Open Solutions for Digital Construction

FJDynamics delivers machine control solutions for the entire process of earthwork, roadwork, and groundwork construction, boosting efficiency while reducing costs.