

FJDTrion EC100

EXCAVATOR GUIDANCE SYSTEM

PRECISION IN EVERY OPERATION

EC100 is a flagship 3D excavator guidance system built for large-scale projects with advanced jobsite requirements, offering high-precision guidance, dependable performance, and seamless design data integration to support demanding excavation tasks with confidence.

Real-Time 3D Guidance System

±3 cm Accuracy

IP68 Vibration-Resistant Antenna

Cloud-to-Field Connectivity

Multi-GNSS Support

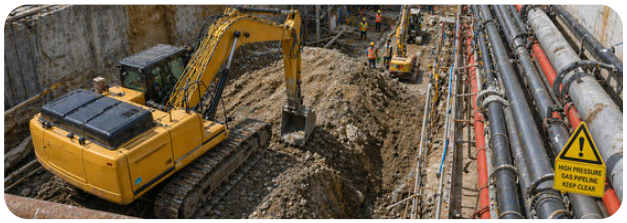
Flexible Connectivity Options

Full Machine Tracking

Broad Excavator Compatibility (Optional)

Developed for Demanding Jobsites

Road construction, slope work, and fine grading demand high accuracy and stable performance. EC100 delivers reliable 3D guidance to help operators execute work precisely according to the design data.



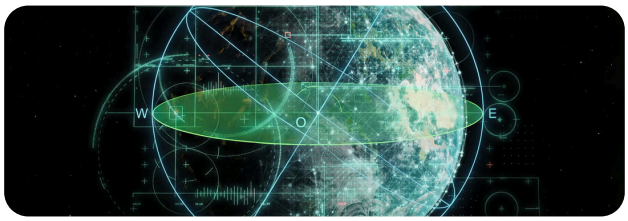
3D Electronic Fencing System

Equipped with 3D geofencing, real-time attitude sensing, and voice alerts, it helps prevent over-excavation for safer and more precise excavation.



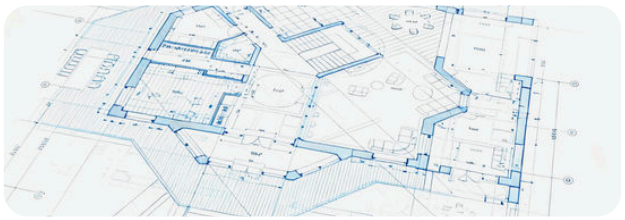
Global Coordinate Systems

Includes over 6,000 predefined coordinate systems worldwide for quick deployment across regions, with no extra configuration required.



Multi-Layer Support

Supports DWG, DXF, SHP, KML, and XML files, with clear layer visualization for advanced project drawings.



Adapted for Dredging Operations

Built for dredging and waterway construction, with IP67/68-rated components, a roof-mounted GNSS antenna, and an amphibious kit for reliable performance in harsh environments.



Wide Excavator Compatibility (Optional)

Works seamlessly with swing, offset, and standard booms, adapting to different excavator types for efficient, accurate performance across diverse jobsite conditions.



FJD TRION TERRAMIND — SHAPE THE GROUND WITH ACCURATE 3D CONTROL



Project Management

View project progress and resource data in one place. Supports schedule tracking and risk monitoring.

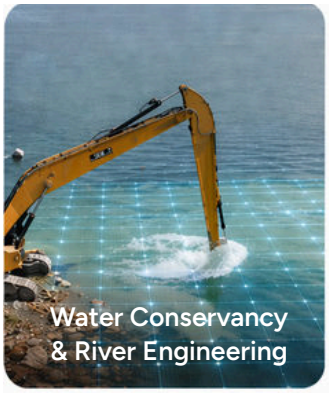
Device Management

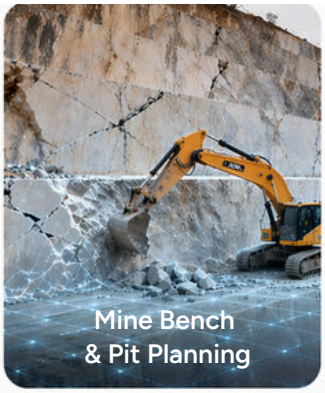
Monitor machine location and operating status in real time.

Cross-Team Collaboration

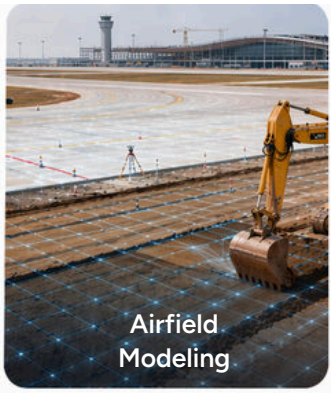
Sync design and field data through the cloud to keep office and site teams aligned.

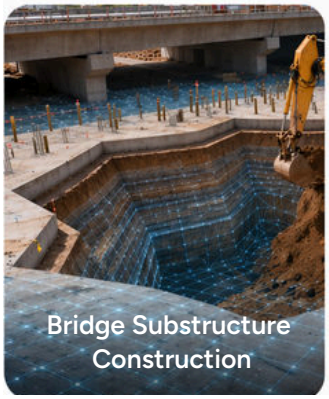
RELIABLE PERFORMANCE ON COMPLEX JOBSITES

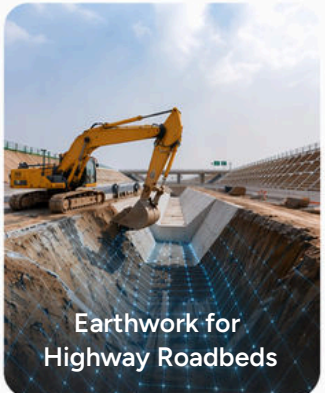


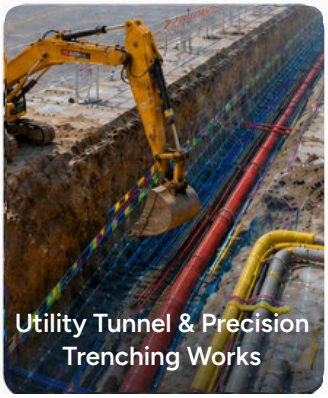


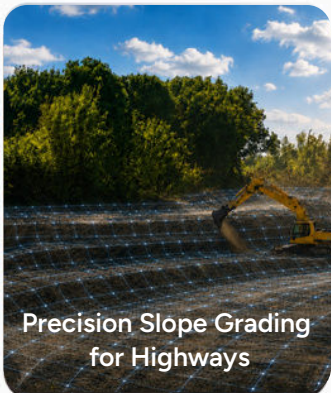












SPECIFICATIONS

Control Module

Size	200×155×63 mm
Communication	Wi-Fi, BT, Ethernet
Power Supply	9–36 V
Operating Temp	-40°C to 60°C
Storage Temp	-40°C to 85°C
IP Rating	IP67
GNSS Frequency Band	BDS B1I, B2I, B3I, B1C, B2a;
	GLONASS L1, L2;
	Galileo E1, E5a, E5b;
	GPS L1C/A, L1C, L2P(W), L2C, L5;
	QZSS L1, L2, L5
GNSS Channel	1408 channels
GNSS Connection	NTRIP, Base Station RTK, PPP
Positioning Accuracy (RMS)	Horizontal: 0.8cm+1ppm
	Vertical: 1.5cm+1ppm
Radio 400M/900M (Optional)	410 MHz to 470 MHz
	902 MHz to 928 MHz
Wi-Fi Frequency Range	2400 MHz to 2500 MHz

IMU Module

Resolution	<0.05°
Operating Voltage	9–32 V DC
Output Frequency	up to 100 Hz
Operating Temp	-40°C to 85°C
IP Rating	IP67
Max Angular Rate	<400
Static Accuracy	0.15°
Dynamic Accuracy	0.50°

Swing Boom / Offset Boom Accessory Kit

Excavator Encoder Assembly	*1
Encoder Connection Harness	*1
Extension Harness	*1
Oldham Coupling	*1

Central Display

Size	284×189×22.5 mm
Display	10.1", 1920×1200, 750 cd/m²
Memory	8GB RAM, 128 GB ROM
CPU Processor	Octa-core 2.2 GHz
Power Supply	7-30 V DC
Wi-Fi	802.11 b/g/n 2.4 GHz
BT	5.0 (BLE)
Battery	10000mAh/3.8V Lithium
Operating Temp	-20°C to 60°C
Storage Temp	-30°C to 70°C
IP Rating	IP68
2G/3G/4G	GSM: B2/B3/B5/B8
	WCDMA: B1/B2/B5/B8
	TD-SCDMA:B38/B39/B40/B41
	CDMA2000
	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B28
	LTE-TDD: B38/B39/B40/B41

Interface

Type-C*1, Supports OTG
Type-A*1, USB 2.0
Earphone Jack*1, Standard 3.5mm
TF Card Slot*1
SIM Card Slot*1, Standard Micro SIM
DC Power Port*1
RJ45 Port*1
RS232 (Serial Port)*1
POGO PIN Connector*1 (USB+Charging)

Tilt Bucket Accessory Kit

Tilt Sensor	*1
Thickened Protective Cover	*1
Thickened Protective Cover Baseplate	*1
Tilt Sensor Connection Harness	*1
Bucket Sensor Connection Harness	*1
Extension Harness	*1

Free Quote: sales@fjdtrion.com

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Build on Precision, From Vision to Reality

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