FJDTrion EC100

EXCAVATOR GUIDANCE SYSTEM

PRECISION FOR EVERY DIG

The EC100 is a wired excavator guidance system delivering accuracy up to ±3 cm. It tracks machine posture in real time and gives clear on screen digging guidance so operators stay confident with every move. Import CAD design files directly to support accurate, efficient excavation from start to finish.

±3 cm Accuracy

Fast Setup & Calibration

Anti-Vibration Antenna

Full Machine Tracking

Multi GNSS Support

Flexible Connectivity Options

Rugged Field Tablet

Cloud-Device Integration

RTK Calibration

Supports RTK calibration using the V10a Rover , without relying on professional equipment like a total station. Completes calibration in just 30 minutes.

Total Station Calibration

Supports total station calibration using a total station, the guided calibration process completes setup in just 5 steps, designed for professional users.

Global Coordinate Systems

6,000+ predefined coordinate systems worldwide. Quick setup for different regions, without extra configuration.

Multi-Layer Support

Works with DWG, DXF, SHP, KML, and XML files. Clear layer display for complex project drawings.

Full-Machine Posture Guidance + Electronic Fence

IMUs on body, boom, arm, and bucket deliver 100Hz real-time 3D posture & joint angles. Custom e-fences trigger voice alerts to prevent collisions & over-excavation.

Adapted for Dredging Operations

Built for water construction: IP67/68-rated components, roof-mounted GNSS antenna, and amphibious kit ensure reliable performance in harsh dredging environments.

SHAPE THE GROUND WITH CERTAINTY. STAY IN CONTROL.

Device Management

View machine location and status in real time.

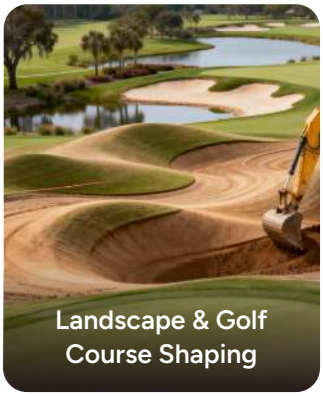
Project Management

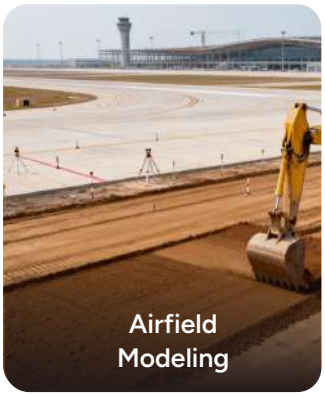
View project progress and resource data in one place. Support schedule tracking and risk monitoring.

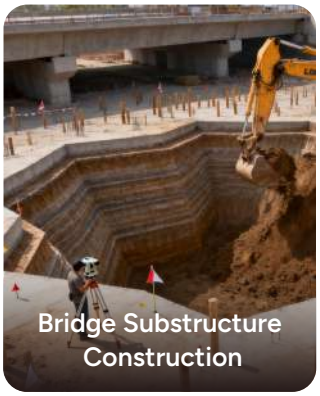
Cross-Team Collaboration

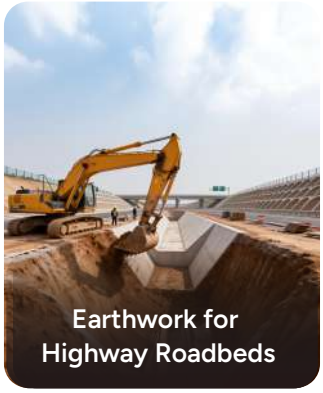
Sync design and field data through the cloud. Keep your office and site workflows aligned.

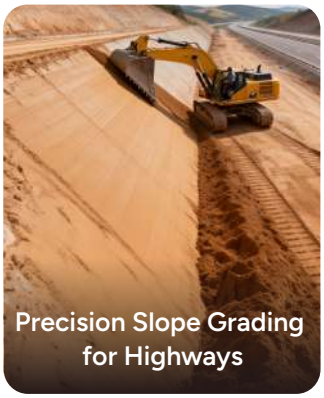
HELPS YOU GET IT RIGHT, ANYWHERE











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
Vertical (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	284x189×22.5 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/3.8Vlithium
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/B28A
	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

Attitude Sensor-Tilt	*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

Build on Precision, From Vision to Reality

FJDTrion