Slab Track

Purpose:
Millimeter-accurate installation, inspection and quality control for slab track, direct fixated and embedded track, with live results in the field.

Where it applies:
New slab-track builds, precast slab adjustment, control after concreting, and final inspection/acceptance.

Workflow:
1) Geodetic station setup and control ties
2) Record 3D track position with gauge/cant (twist calculated)
3) Live comparison to design
4) Generate correction lists and acceptance docs.

Key components:
Trimble GEDO CE 2.0 trolley or electronic Trimble GEDO Track Bar, GEDO SPS
Trimble Access Rail modules
GEDO IMS for high-productivity acceptance
GEDO Office for analysis and reporting

Deliverables:
- Variance between measured track and design alignment (live and post-processed)
- Correction values / optimized correction lists for lateral and height plates
- Quality and acceptance reports for slab, direct fixated and embedded track
- Merged track sections and final position datasets for handover (GEDO Office)

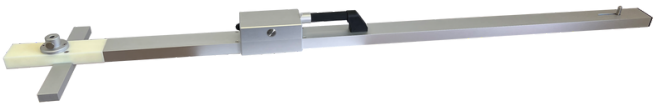
GEDO Track System

Configuration: Trimble GEDO CE 2.0 trolley/GEDO Electronic Track Bar + control unit + Trimble total station. Trimble Access Rail Module

Method:

One-step recording of three-dimensional track position together with track gauge and cant (superelevation).
Differences to the design alignment are shown live; offset and correction values are displayed on site. Calculation can be horizontal or in a canted (superelevated) system.

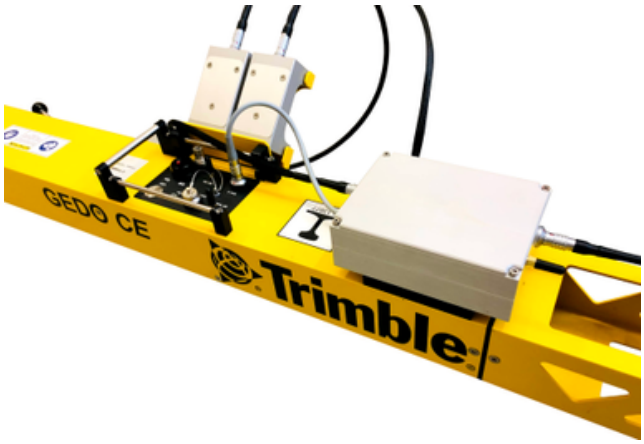
GEDO Track System



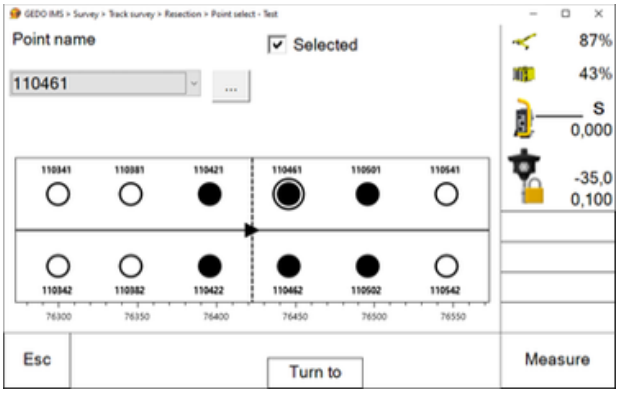
GEDO Electronic Track Bar

Deliverables:

- Variance comparison between measured track and design alignment
- Merging of track sections from different station setups into a single resulting track
- Quality and acceptance reports for slab track position
- Optimisation and creation of slab-track correction lists



GEDO IMS System



Configuration:

Trimble GEDO trolley + IMU + Trimble control unit + Trimble total station.

Method:

Fully automated geodetic resection after the first setup
Continuous, high-resolution capture of absolute 3D track position with gauge, cant and calculated twist in one step.
Correction values and acceptance data are recorded.
Standardised reports are generated quickly for construction and QA teams.

Deliverables:

- Variance comparison between measured track and design alignment
- Quality reports for track position and acceptance for slab, direct fixated and embedded track
- Recalculation of station setups if control point coordinates/configuration change
- Recording and standardised reporting of correction values for lateral guidance and height correction plates

GEDO SPS System

Configuration:

Flexible measurement solution for alignment of precast slab without pre-assembled rails. Alignment performed using digital track alignment data and precise control points. Customised per project.

How it works:

Combines different sensors to provide precise vertical and lateral correction values at all plate positions required for the alignment procedure.

Benefits:

- Individually customised system
- Usable across different plate types and construction/manufacturing methods
- Precise vertical/lateral correction values
- Simple, intuitive user interface
- Optimised measurement sequence for plate alignment