

RAILWAY AND METRO TRACK INSPECTION

Drone + AI track inspection

A drone flies the track. AI finds visible defects. An engineer approves every work order.

How it works

1 Fly

A drone flies the section at about 6 m height and takes photos every 4 m.

2 Detect

AI finds missing fasteners, cracked sleepers, vegetation, obstructions and water.

3 Locate

Each defect is placed by km/metre chainage, with its photo.

4 Decide

Findings become draft work orders. A named engineer approves or rejects each one.

What we have shown so far

- In simulation, on a track the AI had never seen: 16 of 17 defects found, no false alarms.
- 100% of sleepers photographed; average location error about 3 cm.
- Tested on public real drone photos: accuracy is much lower there, so real-track data is the next step.
- Nothing is issued automatically. Every decision is recorded.

What we are asking for

A short supervised pilot on one section (or a depot line) during a traffic block, with your inspectors checking every finding. We bring the software and arrange flights with a certified drone pilot; you tell us what matters most on your track.

Results shown are from simulation and public test images. They are not a safety certification.