

Safety Sensors for Mining Vehicles — Checklist

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Implementation Checklist

- ☐ Rear radar sensors: Programmable detection zones covering 0–3m (emergency stop zone) and 3–10m (warning zone) on large dump trucks. Exclusion zones configured for the vehicle's own rear body profile to prevent false alerts.
- ☐ Nearside and offside side sensors: Covering the full length of the vehicle from front axle to rear. On dump trucks operating on haul roads, the side hazard is primarily other vehicles and workers directing at tipping points.
- ☐ Front sensors: On large surface mining vehicles, the visibility from the cab directly ahead at ground level can be severely restricted by the cab height and bonnet profile. Front proximity sensors supplement camera coverage for the immediate forward zone.
- ☐ MOIS-equivalent front detection: Even outside TfL's DVS PSS jurisdiction, the principle of AI-based pedestrian detection before moving off addresses a specific pattern of moving-off fatalities that is as present in surface mining as it is in London traffic.