RAILWORKS®
TECHNICAL SERVICES

AiVR®

FFV

The multi-award-winning system that **automatically captures** and transmits **Forward Facing Video** from trains across the rail network.

The Challenge

Traditionally, access to the track environment to carry out inspections or complete surveys has required physical access to site (boots on ballast), which normally requires a track outage or special track access procedures.

Working trackside always puts workers in a high-risk environment, which is also time consuming with travel to site and can be costly if repeat visits are required.

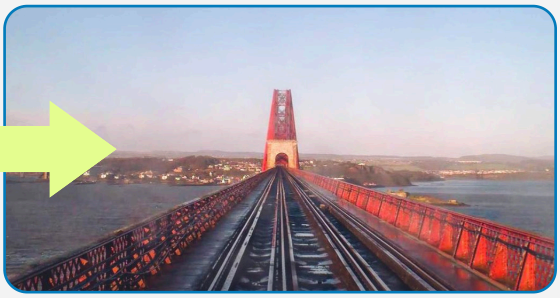
The Solution: AIVR FFV

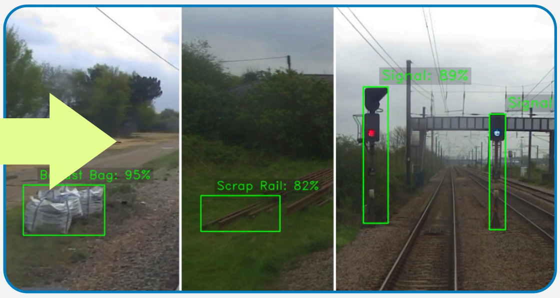
AIVR FFV (Forward Facing Video) **seamlessly captures and transmits HD video** while on the move, employing advanced 4G/5G connectivity for instant and secure online accessibility on the AIVR Platform without the need to manually transfer or process data.

This innovation is pivotal in **reducing on-site track inspections**, offering a **reliable and easily accessible** capability for railway monitoring.

The End-to-End system consists of:

- Forward Facing cameras installed (temporarily or permanently) on in-service and measurement vehicles.
- Video and locational data automatically transmitted via 4G/5G in rapid time, securely accessible within minutes on the **AIVR Platform** for **online digital review.**
- Machine Learning and AI can be applied to **automatically detect assets** along the track such as signals, scrap rail and signage.





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Forward Facing Video Data Capture Methods

Forward Facing Video is captured and automatically and transmitted to the AIVR Platform via 4G/5G.

All data capture methods record automatically and transmit to the AIVR Platform via 4G/5G.

Integrated AIVR Connect

The AIVR Connect can be integrated permanently with FFV cameras and other sensors, into a sophisticated hub for remote track condition assessment.

The device fits conveniently into any cabinet or housing onboard the vehicle it has been selected for. It operates independently of other vehicle communication systems, enhancing real-time track environment analysis.

AIVR Go

The phone-sized AIVR Go device can be mounted internally in the windscreen of a wide range of locomotive classes, using an easily operated suction mount.

The device can be moved between multiple routes and trains on any given day to capture the routes you need.

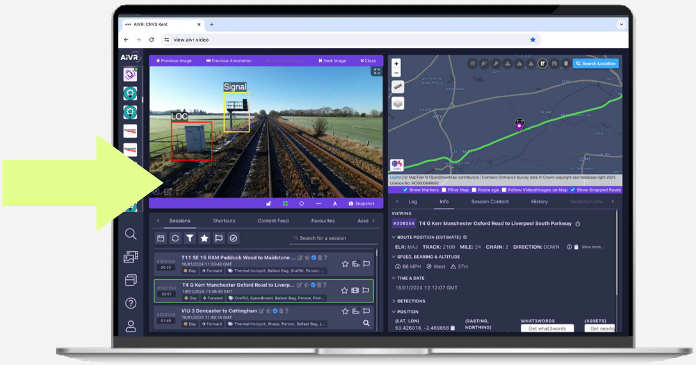
AIVR T-Box

A range of AIVR cameras can be positioned externally in a robust T-Box housing. The housing can be mounted by hand onto most vehicles with a simple to install bracket.

Inspect the track environment on the AIVR Platform

On the AIVR Platform, users can analyze video footage and access a suite of digital tools which allows them to **locate, measure, annotate** and **export images** while also carrying out planning and reporting activities which can be shared within and across teams and groups.

Machine Learning and AI can be applied to the video data to **automatically detect assets on the track**, and assist with people blurring and augmented signal sighting.



Interested in capturing data?
Get in touch to learn more about AIVR FFV, email us on:
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