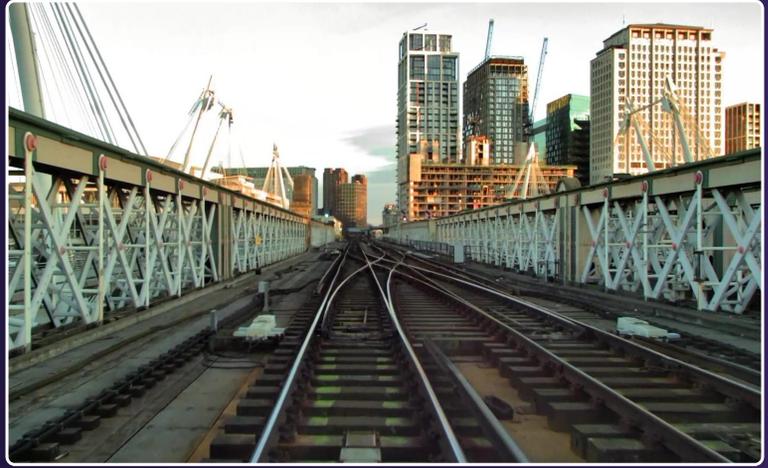


AIVR[®] FFV

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 lineside environment to carry out inspections or complete surveys has required physical access to site (boots on ballast), which normally requires site to be under possession given red zone working restrictions.

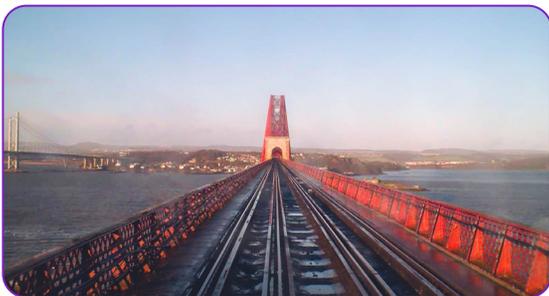


Working trackside always puts workers in a high-risk environment, which is also time consuming with travel to site and can be costly if repeat visits are required.

The Solution: AIVR FFV

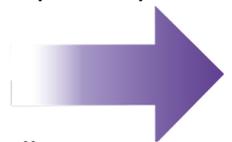
AIVR FFV (Forward Facing Video) **seamlessly captures and transmits HD video** whilst on the move, employing advanced 4G/5G connectivity for instant and secure online accessibility on the AIVR Platform without the need to manually transfer or process data.

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 ballast bags.



Forward Facing Video Data Capture Methods

Forward Facing Video is captured in partnership with Network Rail, Transport for Wales and multiple TOCs and FOCs for collaborative data sharing and maximum coverage.

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 Tail Lamp Camera

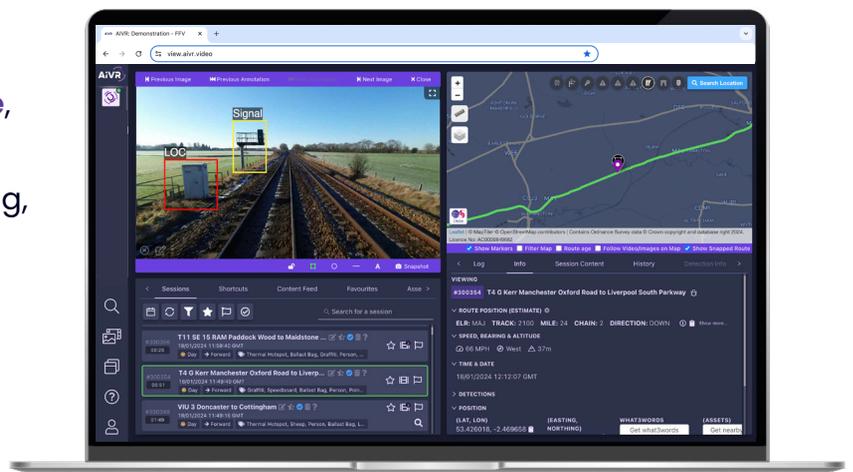
A range of AIVR cameras can be positioned externally in approved robust TLC housing developed collaboratively with Network Rail's Signalling Innovations Group.

The housing can be mounted by hand on the Tail Lamp bracket of any class of locomotive which has the appropriate fixings.

Inspect the lineside environment on the AIVR Platform

On the AIVR Platform, users can analyse video footage and access a suite of digital tools which allows them to **locate**, **measure**, **annotate** and **export images** whilst also carrying out planning, sighting, 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: enquiries@onebigcircle.co.uk

