



# ARC SYSTEM

Multifunctional and versatile surveillance and communications platform.

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PRODUCT BROCHURE



# ARC SYSTEM

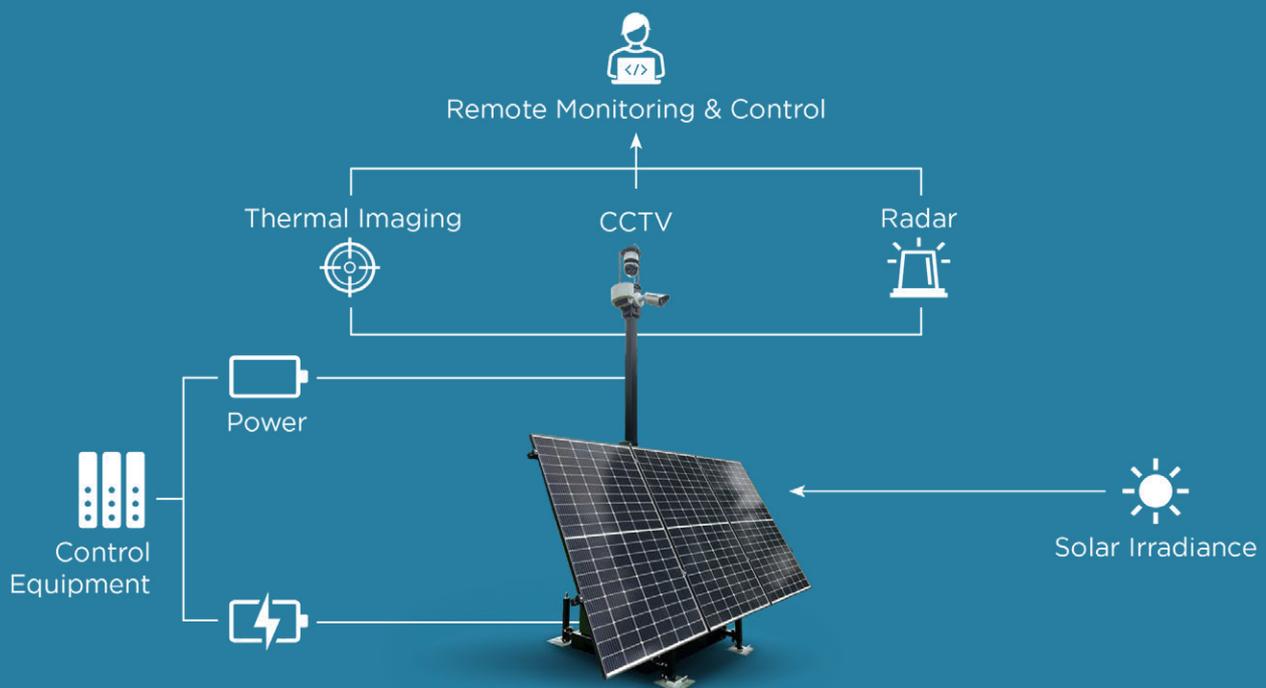
**THE ARC IS A RAPIDLY DEPLOYABLE SOLAR POWERED CCTV TOWER WHICH PROVIDES RELIABLE, COST-EFFECTIVE MONITORING SOLUTIONS FOR HIGHWAYS.**

## WHAT DOES IT DO?

Provides 24/7 HD CCTV streamed via a mobile network to any location or device powered by solar.

## STANDARD FEATURES

- HD Pan Tilt Zoom camera with long range IR
- 6m telescopic surveillance mast with no working from heights for camera maintenance
- Optional Integrated methanol fuel cell back up with up to 60 days of fuel
- 24/7 streaming with no hidden data costs
- Encrypted data in storage and in transit
- Industrial dual-SIM router with 2 SIM slots for fail over
- SIM bonding for higher quality video streams in poor signal areas
- Up to 30 days of storage for recorded footage
- Integration into any Video Management System
- Remote system health monitoring and automatic alerts
- Remote component reset function to minimise support visits
- Up to 7-10 days of battery back up
- Certified for deployment on Highways
- Designed and Manufactured in the UK to British Engineering Standards



# BENEFITS

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## BENEFITS OF ARC

- Green, reduce CO<sub>2</sub> emissions by up to 500kg per year
- Scalable, add more cameras as required including fixed statics and ANPR
- Versatile applications, integrate Stopped Vehicle Detection analytics or traffic counting RADARs
- Versatile deployment, use our trailer system, a HIAB, or forklift
- Rapidly and easily deployable, cameras live and streaming in minutes so less time on the road
- Secure, lockable cabinet, tamper alerts, encrypted data, IP66 rated
- Ruggedised, vandal resistant, built to last
- Recyclable, each unit is made up of 99% recyclable material
- Proven in deployments in Highways, Rail, Construction, and Oil and Gas

## ADD-ONS/OTHER BENEFITS

- Connect other sensors including environmental monitoring sensors, IOT devices, traffic counting RADARs, etc.
- Battery back up in the event of power failure
- Branded, add your logos or colours



# ARC SYSTEM OPTIONS



## CCTV Surveillance Cameras

High powered, HD PTZ camera with up to 200m IR to monitor traffic and enable system operators to coordinate with incident response teams for effective and management of Highway locations.



## Radar Detection

Integrate Stopped Vehicle Detection or traffic counting radars to enhance incident detection and data gathering on the roads. Radars integrate with cameras for early detection and eyes-on the event.



## Thermal Imaging

Deploying thermal imaging cameras are most effective in complicated locations and over long distances. Detecting the thermal signature of an intruder, an alert is relayed via the cellular network and to the monitoring centre.



## Automatic Number Plate Recognition

Our ANPR cameras deliver detection and capture of numberplates, providing remote vehicle eligibility to enter controlled locations or to monitor traffic. Data can be streamed in real time to the monitoring centre.



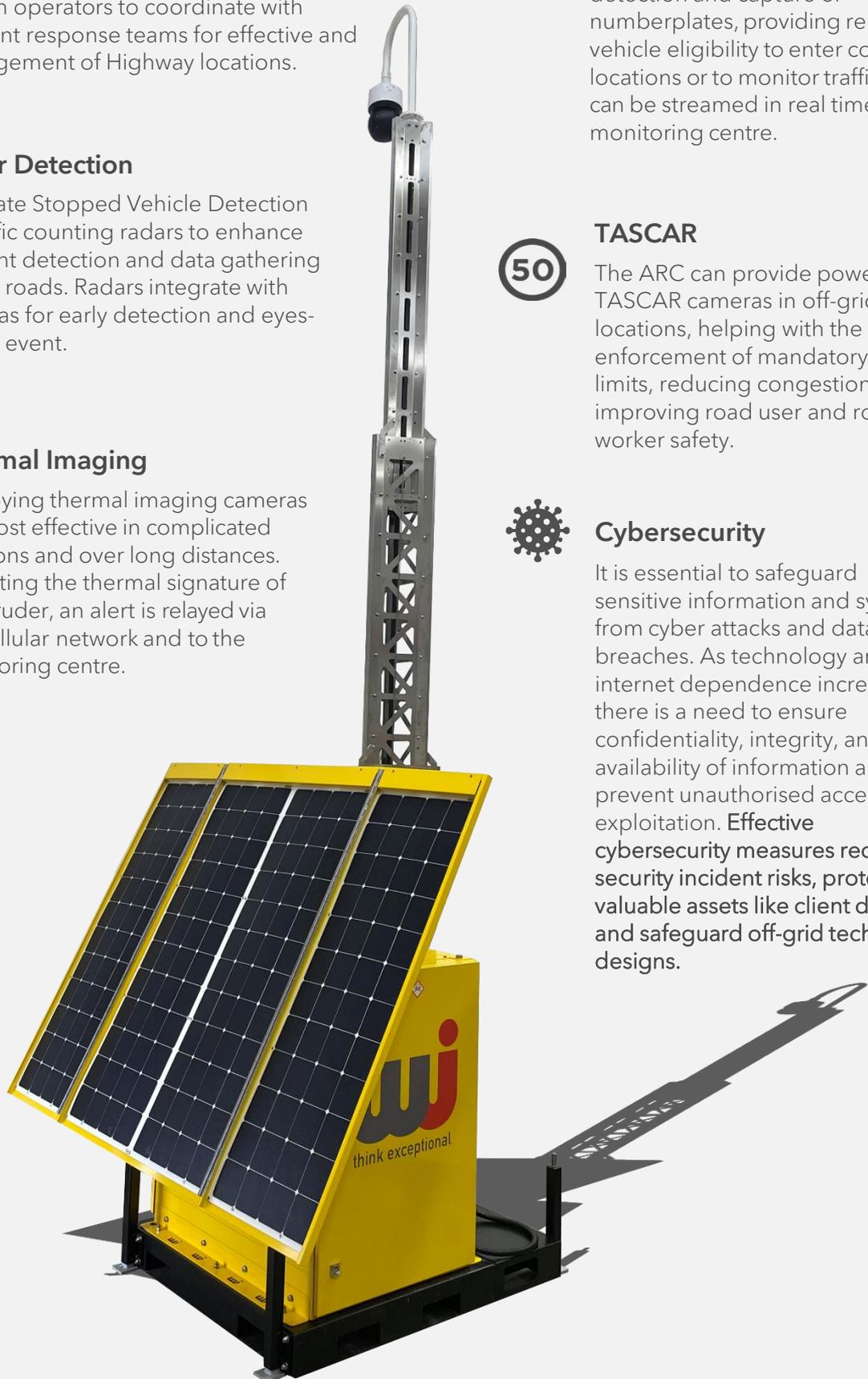
## TASCAR

The ARC can provide power for TASCAR cameras in off-grid locations, helping with the enforcement of mandatory speed limits, reducing congestion and improving road user and road worker safety.



## Cybersecurity

It is essential to safeguard sensitive information and systems from cyber attacks and data breaches. As technology and internet dependence increase, there is a need to ensure confidentiality, integrity, and availability of information and prevent unauthorised access and exploitation. **Effective cybersecurity measures reduce security incident risks, protect valuable assets like client data, and safeguard off-grid technology designs.**



# CASE STUDY

## Delivering Net Zero Safety Surveillance on the A30 Chiverton to Carland Cross Project.

The A30 between Chiverton and Carland Cross is currently undergoing significant dualling upgrades as the only remaining section of the road which is single carriageway from the M5 at Exeter to Camborne. This will help alleviate congestion, provide more reliable journey times and support economic growth in the area.

To support this, the Costain Jacobs Partnership employed WJ Group to provide Sunstone Systems' ground-breaking solar powered and autonomous surveillance systems throughout three phases of the project.

Traditionally temporary CCTV, such as this, would need to be powered using diesel generators or by connecting to the power grid. However, this innovative system delivers a completely net-zero operation, being powered via solar energy and integrated battery system.

Being self-contained, the ARC System can be installed and commissioned faster than traditional wired solutions, with increased efficiency in delivery and related cost savings.

One way in which it does this is by removing the need for cables, as the technology is completely autonomous and streams highway surveillance in real-time across the LTE network and onto the internet for monitoring. This also has considerable safety benefits as it removes the chance of cable strikes whilst the work is ongoing.

The ARC system incorporates the latest technology and utilises high-speed, pan-tilt-zoom cameras with long-range optimised infra-red that delivers HDTV 1080p with 32x optical zoom. The real time surveillance feed will be monitored remotely in the A30 compound to support operations and traffic management there.

This project showcases the latest technology and its potential to increase efficiency in delivering highways surveillance while reducing its impact on the environment.

**The carbon saving in Phase 1 alone will deliver a 972 tCO<sub>2</sub>e reduction, which is equivalent to 3,535,831 miles travelled in an average diesel car.**

**In addition to this, the standalone unit eliminates any air pollution that would have resulted from the use of diesel generators, a significant advantage for the local population.**

A key aim of the scheme is to produce enhanced environments for nature as well as deliver low-carbon solutions that align with National Highways' net zero objectives.



# ARC04\_6M Transport and Deployment

## Transport Dimensions & Weight:

- 1200 x 1600 x 2300 mm (length x width x height)
- 1050 kg

## Deployed (footprint only. i.e. contact area with the ground):

- 1620 x 2140 mm (length x width)

## Lifting Instructions:

- Slots available for standard pallet truck: 400 mm apart (centre to centre)
- Slots available for standard forklift: 700 mm apart (centre to centre)
- 4 x M16 threads on cabinet for installation of lifting eyes to allow overhead lift.



ARC: Deployed

## Deployed (total available space required, to ensure operation of mast, cabinet doors and solar array):

- 2730 x 2250 x 6450 mm (length x width x height). Height includes installed swan-neck bracket for PTZ camera.

## ARC: Transport Mode



FORKLIFT SLOTS



think exceptional

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Working in partnership with WJ

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