AUTOMATIC RECOGNITION

PRECISION TARGETING

DAY AND NIGHT OPERATION


OBJECT GEO-TAGGING

Visual AI force multiplier for cross-domain autonomy

FortifAI is a state-of-the-art, low-SWAP (Size, Weight and Power) visual intelligence solution designed to automate one or many uncrewed aerial, surface, or ground vehicles. Offering a high level of operational flexibility, our selection of operator augmentations can be seamlessly integrated onboard the vehicle with our AIR processor, or alongside the ground control station using our UK-manufactured tactical Artificial Intelligence Module - AIM.

Deeper real-time insight: FortifAI is a turn-key computer vision platform that extends beyond standard object detection or tracking. By integrating multiple synergistic Deep Neural Networks, we enhance situational awareness and facilitate more informed decision-making. Our expanding suite of features operate concurrently in real-time and include human behavioural risk analysis, ANPR, armed person identification, object colour recognition, precision landing on optical markers, face redaction, geospatial tagging, and GNSS-denied visual navigation.

Rapid system Integration: Our seamless integration process allows rapid testing of FortifAI within your existing infrastructure. We support a growing range of open-source and industry-standard protocols, such as MavLink, and our own QGroundControl plugin. One edge device can process two video streams concurrently, as well as steer two vehicles and two pan and tilt cameras.
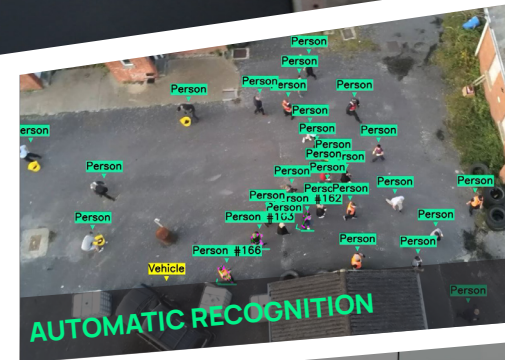
TIME-CRITICAL THREAT ANALYSIS

CROSS-DOMAIN AUTONOMY
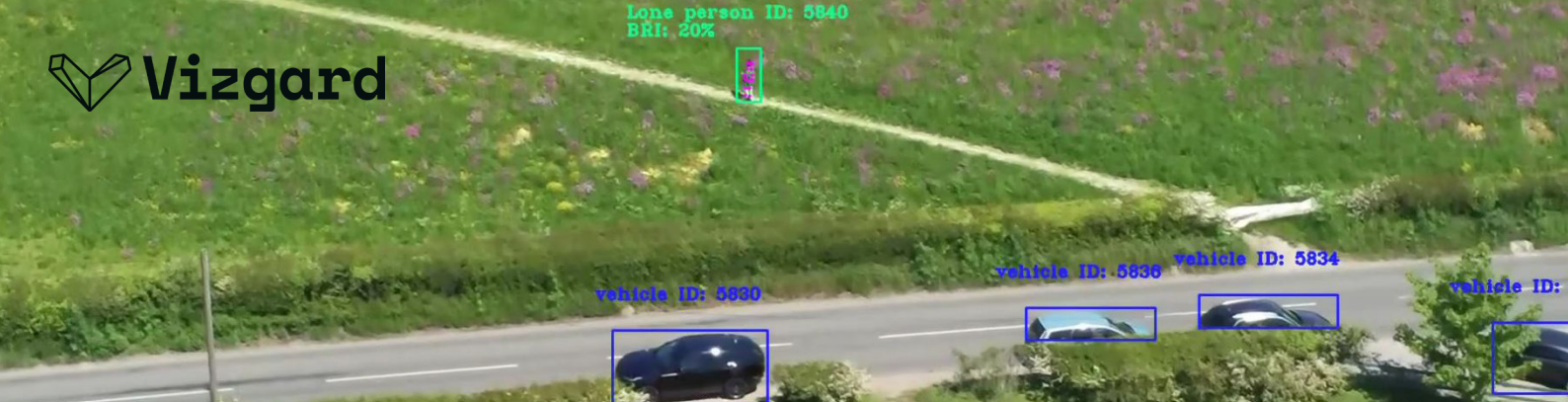
USES EXISTING INFRASTRUCTURE

COST-EFFECTIVE SOLUTION

Designed, built and supported in the UK 🇬🇧

Lone person ID: 5840
BRI: 20%
vehicle ID: 5836
vehicle ID: 5834
vehicle ID: 5830
vehicle ID:

Vizgard

KEY FEATURES

- ✓ Automatically find and geo-tag objects of interest
- ✓ Precision control of camera and drone platform
- ✓ Behaviour recognition including 'armed' person
- ✓ 1x edge device supports 2x video/vehicle/gimbal
- ✓ Operates on daylight, SWIR, MWIR and LWIR sensors
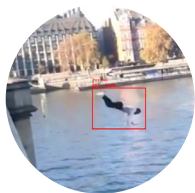- ✓ Vision-based GNSS-denied navigation
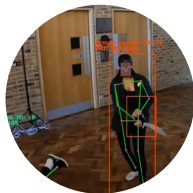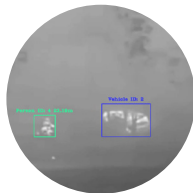
APPLICATIONS

ISR
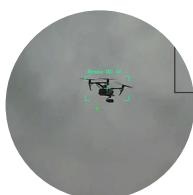
Counter-UAS

Perimeter security

Suicide prevention

Counter-terrorism

Covert surveillance

HARDWARE OPTIONS

AIM

AIB

AIR

SPECIFICATION

AI Performance	NVIDIA Orin NX 16GB (100 TOPS), Nano (40 TOPS)
Object Types	1: Person, vehicle, drone, bird, plane, face, heli, boat 2: Person, car, large vehicle, bike, number plate, weapon, face 3. Drone, plane, helicopter, bird, AerialObject 4.Various Maritime

Interoperability		
	MAVLink	Platform control and status
	NextVision	Camera control
	ONVIF Profile S	Camera control and status
	NMEA 0183	AIS track input and GPS input
	SAPIENT	C-UAS data exchange standard
	Herelink	Processed video output
	Parrot Anafi USA	Platform status
	RTSP	Video input and output
	WebRTC	Video playback in web browser
	DJI	Coming soon

Storage	128 GB to 2 TB NVMe SSD

I/O	AIM	AIB	AIR
	GbE	GbE	2x GbE
	-	2x USB3 A	USB3 C
	USB 2	2x USB 2	2x USB 2
	-	HDMI	Mini DP
	RS485/422	-	-
	2x HD-SDI	-	-
	CVBS	-	-
	-	-	CAN
	-	-	2x CSI 4 Lane
	-	-	2x I2C
	-	-	I2S
	-	-	2x UART
	-	-	SPI
	-	-	M.2 Key-E 2230

DC Voltage In	12-28VDC 30 watts peak, AIR Nano 7-10 watts
Environmental	-20 to +55C ambient, AIM IP-67
Dimensions	AIM: 225 x 130 x 52mm, 1350g AIB: 110 x 130 x 60 mm, 760g AIR: 91 x 61 x 52mm, 125g inc fan and storage

Specifications subject to change.