COUNT PEOPLE AND VEHICLES FROM THE SIGNALS ALREADY IN THE AIR.

Camera-free Wi-Fi sensing for high streets, councils, hotels, offices, construction and remote sites. No cameras, no images and no tracking of phones.

Footfall | Traffic and kerbside | Occupancy for heating and air-con | Out-of-hours security | Remote sites

BOOK A 4-WEEK PILOT ›

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A TRADING NAME OF TERRAVISION SOLUTIONS LTD · LEEDS

HOW IT WORKS

A WEB OF RADIO LINKS THAT NOTICES MOVEMENT

Weavecount places small, low-cost Wi-Fi nodes around a room, building or street. When someone walks or drives through the links between them, the signals change. This is device-free sensing: nobody needs to carry anything. It builds on the channel state information that standard Wi-Fi chips already measure, and the IEEE published a dedicated Wi-Fi sensing standard, 802.11bf, in 2025.

1. PLACE THE NODES

Small boxes, mains or USB power

Either side of a doorway, corridor, room or street, talking over ordinary 2.4 or 5 GHz Wi-Fi.

2. READ THE SIGNAL

Every packet is a measurement

Bodies and vehicles reflect and absorb radio waves, shifting signal strength and phase in recognisable patterns.

3. TURN IT INTO DATA

Counts, presence and alerts

Signal-processing and machine-learning models classify what passed and when: dashboard, data feed or alerts.

PRIVACY FIRST

IT SEES MOVEMENT, NOT FACES OR IDENTITIES

Cameras raise surveillance concerns, and counting phones handles device identifiers. Weavecount works from the radio links between its own nodes, so the raw data holds no images and nothing about anyone's phone.

- ✓ No cameras, video or images
- ✓ No phone, MAC address or app tracking
- ✓ Designed for aggregate counts and occupancy, not profiles of individuals
- ✓ Works in the dark
- ✓ Not a medical or health monitoring product

PUBLISHED RESEARCH

WHAT THE METHOD HAS ACHIEVED ELSEWHERE

Results from published studies by other teams, not Weavecount results. Your pilot measures what it achieves on your site.

93.8%

Accuracy across seven vehicle classes (over 99% for vehicle present or not), radio links between roadside posts on a German motorway.

IEEE IOT JOURNAL, 2020

10.8–26.5%

Heating and cooling savings from occupancy-based guest-room controls in six hotels (conventional sensors).

US DEPARTMENT OF ENERGY

802.11bf

IEEE standard for Wi-Fi sensing, published 2025, bringing sensing into mainstream Wi-Fi.

IEEE STANDARDS ASSOCIATION

Sources: doi.org/10.1109/jiot.2020.2983207 · energy.gov guest-room occupancy-based controls report (CREEA) · standards.ieee.org/ieee/802.11bf/11574

Honest limits: accuracy depends on the site and layout, so every deployment is calibrated and checked on site. Counting individuals in dense crowds is still an open research problem, so there we report activity levels rather than exact numbers.

USE CASES

WHERE IT FITS

HIGH STREETS AND BIDS

Footfall by street and hour

Trends day and night, to show the effect of events, works and promotions.

COUNCILS

Traffic and kerbside

Vehicle counts and classes at junctions, loading bays and car parks, with no number plates captured.

HOTELS AND OFFICES

Occupancy and alerts

Room and zone occupancy to drive heating and air-con setback, plus out-of-hours motion alerts.

CONSTRUCTION AND VACANT PROPERTY

Intrusion alerts

Night and weekend alerts, with no cameras to hide from or vandalise.

ENERGY, RAIL AND REMOTE SITES

Perimeter and entry

Alerts at substations, solar farms, depots and towpaths.

VENUES AND EVENTS

Gates and concourses

Entry and exit activity, to see how busy areas are getting.

COMING LATER **The living city map.** Weavecount is run by Terravision, a satellite data company. We plan to combine ground counts with satellite imagery and planning data.

PILOT OFFER

A 4-WEEK PAID PILOT ON YOUR SITE

Fixed price, quoted per site once we know the scope, with a clear yes or no at the end.

WEEK 0

Scope

Agree what to measure, where the nodes go and how results will be checked.

WEEKS 1–4

Measure

Nodes installed and calibrated, live data checked against manual counts or your records.

WEEK 5

Report

The accuracy we measured on your site, what worked and didn't, and a costed option to continue.

ABOUT

Weavecount is a trading name of Terravision Solutions Ltd, Leeds. Terravision works with satellite and geophysical data, turning noisy signals into maps and targets. Weavecount applies the same signal-processing and machine-learning skills to Wi-Fi. We are a small, new venture: every engagement starts with a measured pilot, and we report results as they are.

CONTACT

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Tell us the site and what you want to count. We'll say whether Weavecount fits and what a pilot involves.