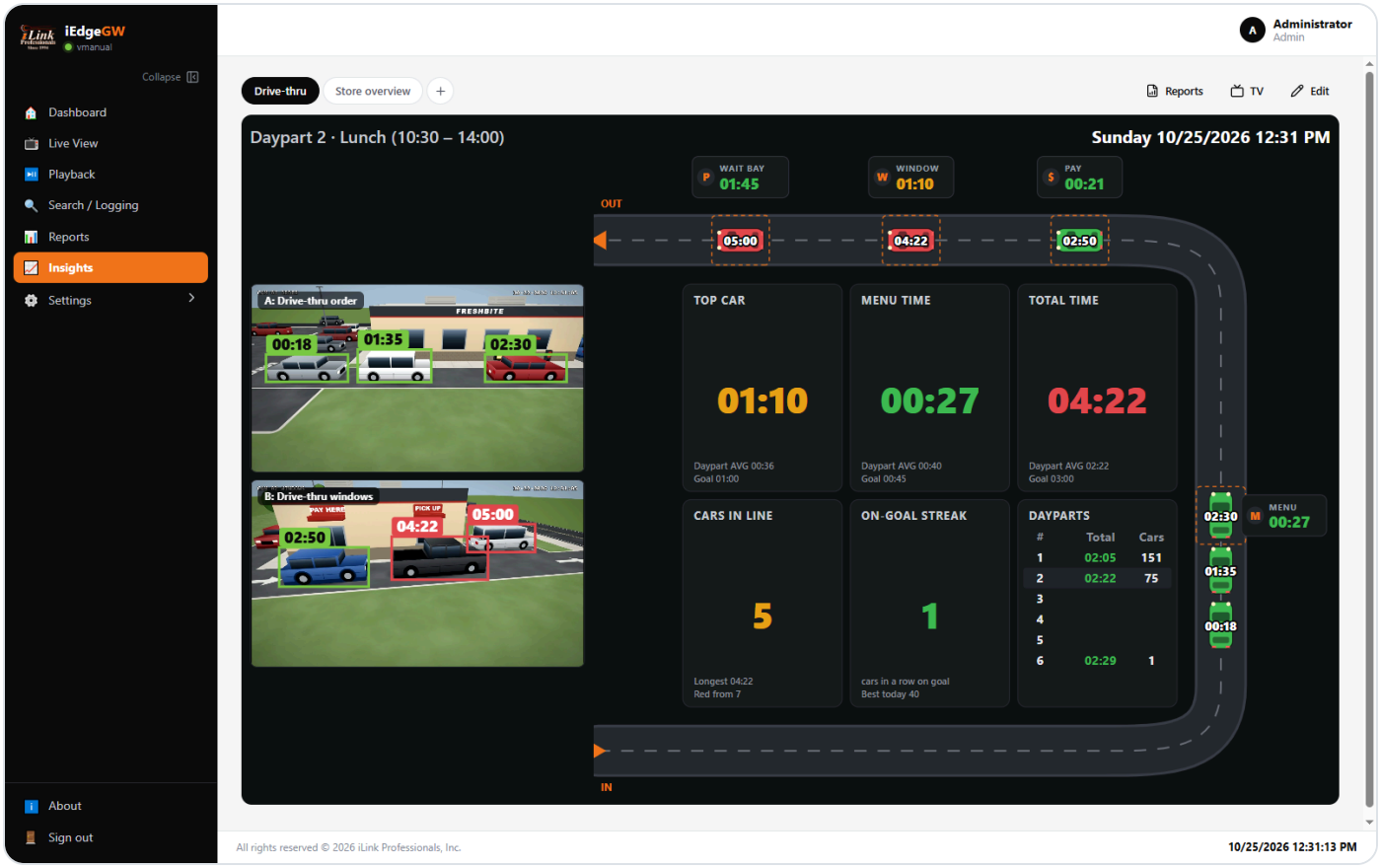
Drive-Thru Speed of Service

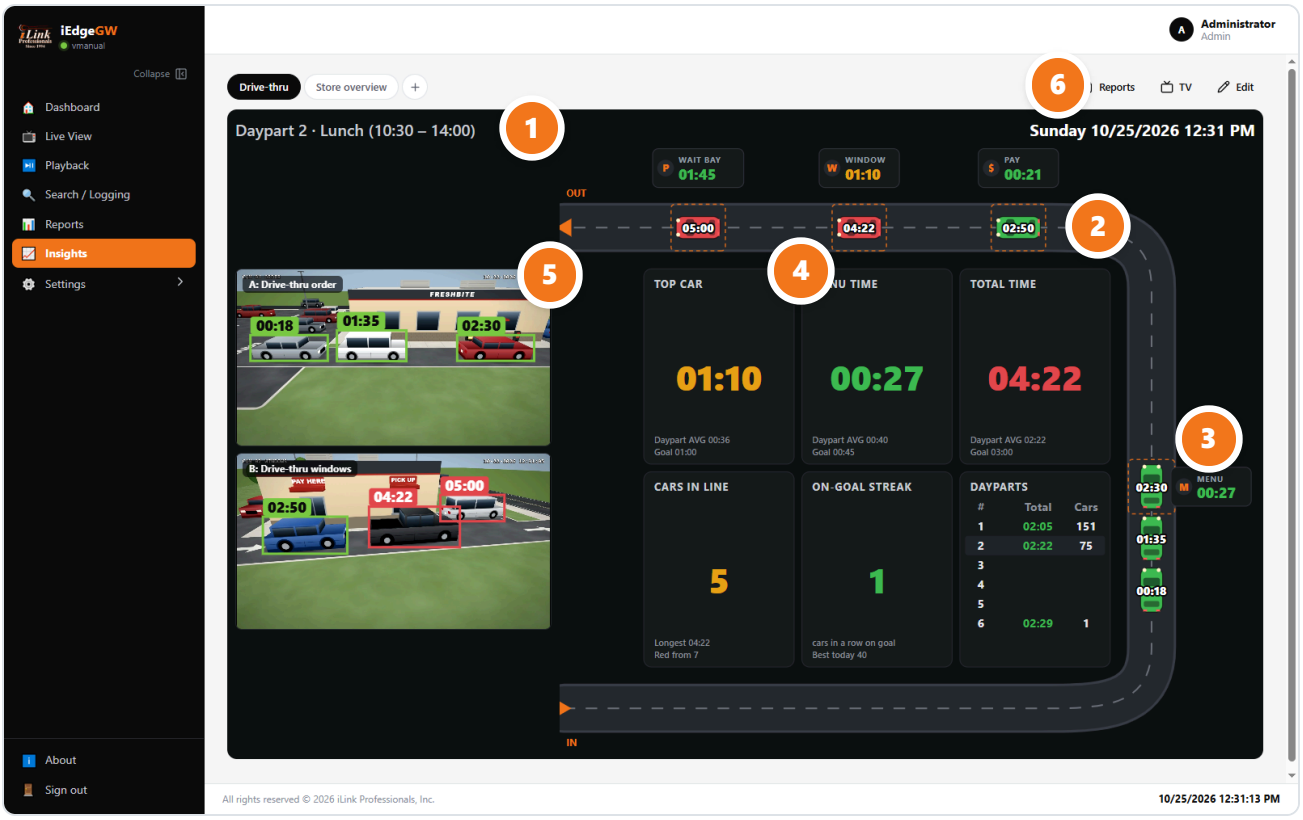
Setup and user guide for the drive-thru board in Insights



1 What the board does
2 Before you start
3 Where to put the cameras
4 Which lane type is mine?
5 Set up the board, step by step
6 Goals, the screen and alerts
7 Using the board every day
8 A TV with no PC: the HDMI ports
9 Reports
10 Where alerts and reports go
11 How the times are measured
12 When something looks wrong
13 Setup checklist

1 What the board does

The drive-thru board times every car from the moment it joins the line until it leaves the window, live, from the cameras you already have. No loops in the ground, no headsets, no extra boxes.



1. **The daypart and the store's time.** Breakfast, lunch, dinner... you name them and set their hours.
2. **The lane.** Every car is a car icon driving the lane, with its time in the lane on it.
3. **A sign at each point** (menu board, pay, window): the car there now and how long it has been there.
4. **Tiles:** the car at the window, a point's time, the lane total, cars in line, the on-goal streak, the dayparts.
5. **Up to three cameras,** live, with each car boxed and timed on the picture.
6. **Reports** (by day, daypart, hour; every car), **TV** (full screen for the kitchen) and **Edit** (the board's settings).

The colours

Every time on the board is coloured against its goal, which you set (section 6):

Colour	Means	Example, goal 60 s, amber margin 25%
Green	At or under the goal.	0:00 to 1:00
Amber	Over the goal, but within the amber margin.	1:01 to 1:15
Red	Past the amber margin: someone should act.	1:16 and more

In the picture above it is the lunch rush. Five cars are in the lane and one is pulled forward to the wait bay. The car at the pickup window has been there 1:10 (amber), and its total time in the lane, 4:22, is over the 3:00 goal (red).

2 Before you start

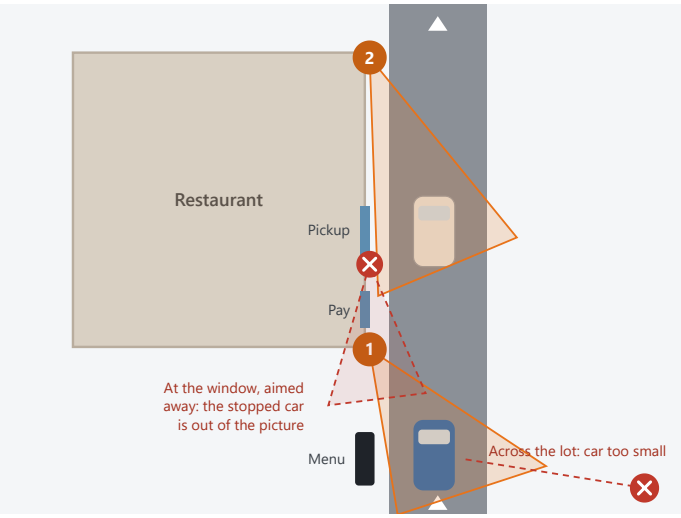
Ten minutes of checks here saves an hour of chasing wrong numbers later.

- [ ] **The cameras are on the gateway** and play in **Live View**: one or more that see the drive-thru lane (section 3 shows where).
- [ ] **Each camera's second stream (sub stream)** is set on the camera or recorder to H.264, up to 1280×720, 10 to 15 frames a second, at a sensible bit rate (about 0.5 to 1 Mbit/s). The gateway's AI watches this stream, and a starved one turns a distant car into a blur.
- [ ] **The gateway's clock and time zone are right** (**Settings › Date / Time**). Dayparts, hours and reports use the store's time.
- [ ] **There is room for the cameras in the gateway's AI.** Each drive-thru camera is analysed, like a camera with lines or areas. **Settings › Analytics** shows the AI capacity and how many more cameras fit.
- [ ] **You can sign in as an admin or a manager.** They set up and change boards. Viewers only see the boards shown to them.
- [ ] **You know your lane:** where cars line up, where they order, where they pay and pick up, and whether staff send cars to wait in a parking bay (section 4).

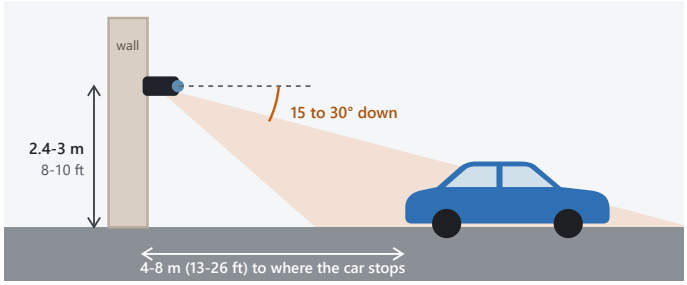
> **Good to know**
> The board counts **vehicles**. People walking through the lane are not counted. A car that drives through a point without stopping (2 seconds or more) is not counted at that point either.

3 Where to put the cameras

Every point you time must be seen by a camera. For the best accuracy, the cameras go on the building wall, on the same side as the menu board and the windows. These are the same instructions as the gateway's own setup guide (**Board settings › Setup guide › Where to put the cameras**), which also shows them animated.



From above. Camera 1 (the menu board) and camera 2 (the pickup window), both on the building, on the same side as the menu and the windows, past their stop, aimed back at the car standing there. A pay window that is a stop of its own gets one the same way. Red: two poor spots.



From the side. On the wall, low enough to see the car's front and side, high enough to look over the roof of the car behind it. Never more than 45° down, never straight down: from above a car is only a roof.

Where

- **One camera for each stop:** the menu board, the pay window, the pickup window. One camera may watch two stops only if both stopped cars are whole in its picture and each fills at least a quarter of its width.
- **On the building, on the same side as the menu board and the windows**, past the stop, looking back at the stopped car: it sees the car's front and the driver's side, and the next car in line stays behind it.
- **Pickup and pay window:** on the wall 4-6 m (13-20 ft) past the window, toward the exit, aimed back along the wall and turned 15-25° out from it, so the car at the window is whole in the picture. Never right at the window: the stopped car is then under the camera, cut off by the picture's edge, and the AI loses it.
- **Menu board:** on the building wall or corner past the menu, aimed back at the car at the menu the same way. A menu far from the building: a longer lens, so the car still fills a third of the picture.
- **2.4-3 m (8-10 ft) up, 4-8 m (13-26 ft) from where the car stops, tilted 15-30° down.**

In the picture

- **The whole stopped car**, about a third to half of the picture's width, with some road around it.
- **The stop in the middle or lower half of the picture**, away from every edge: a car cut by the edge is seen in pieces, and one stop splits into several.
- **Nothing between the camera and the stopped car:** no pole, sign, speaker post or menu board.

- **The road leading in**, so each car is followed before it stops.
- **One lane per camera** where two lanes run side by side.

Camera settings, light, steadiness

- **Second stream** (the one the AI reads): 704×480 (D1) or 1280×720, never 352×288 (CIF). 10-15 pictures a second, a keyframe every 1-2 seconds, H.264 or H.265. The gateway reads it and never changes the camera's settings.
- **Main stream** 2 MP (1920×1080) or more, for recordings and the bigger drawing picture.
- **Lens** about 4 mm at 4-6 m, 6 mm at 6-8 m; a varifocal 2.8-12 mm frames the car exactly. A 2.8 mm shows the car smaller, about a fifth of the picture at 5 m: it works, a third is better.
- **Light:** at night the camera's IR, or a light over the stop, with WDR on. Not facing headlights, the menu board's light or the low sun straight on. In infrared the cars' colours show in grey; the times are not affected.
- **Keep it steady:** a fixed camera, or a PTZ parked on one preset with no tour. A camera moved after drawing needs its zones drawn again. The video must reach the gateway steadily: the recorder on the store's network, or reachable directly.
- **The cars keep their order between cameras** (first in, first out, as loop-sensor timers do), so nothing special is needed between cameras.

> **Already have cameras?**
> Move or set each one as close to this as you can. After mounting, check with one car: at each stop the car is whole and near the middle of the picture, and in the drawing picture its dot turns green inside the zone. The board's **Check the cameras** (Board settings › Lane) then grades each point from its camera's last 24 hours.

> **About the pictures in this guide**
> The demonstration restaurant's two cameras, A (the line and the menu board) and B (the pay and pickup windows), look at the lane from across it, so that the whole site shows in each picture. Mount your own cameras on the building, as above.

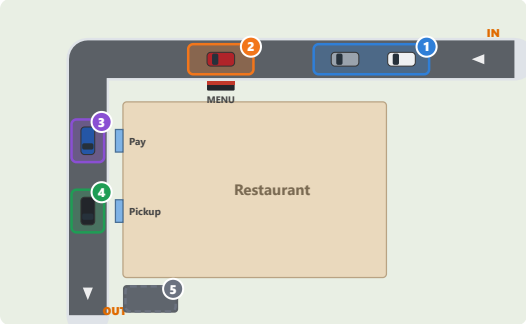
4 Which lane type is mine?

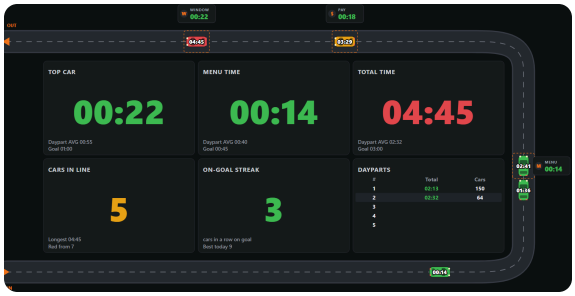
Find the drawing that looks like your drive-thru. Each one says what to pick in the board's settings (**Lane type** and **Start from**, section 5) and shows what the board then looks like.

1 Line (waiting to order) **2 Order (menu board)** **3 Pay window** **4 Pickup window** **5 Wait bay**

A. One lane, a pay window and a pickup window

The most common drive-thru: one line, one menu board, cars pay at the first window and pick up at the second.

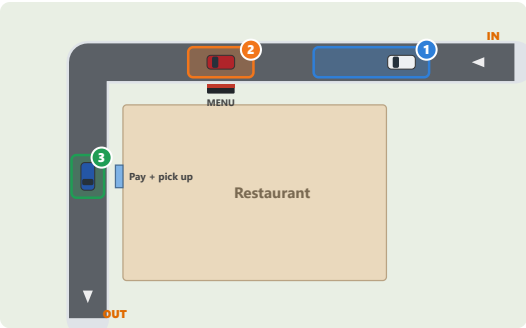


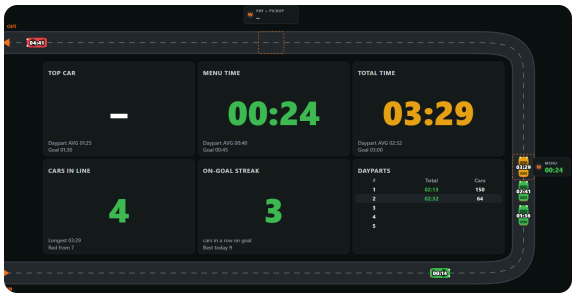


Pick: Lane type **Single lane** · Start from **Line, menu, pay window, pickup window**

B. One lane, one window (pay and pick up at the same window)

A small restaurant or a quiet shift: the same person takes the money and hands out the food.

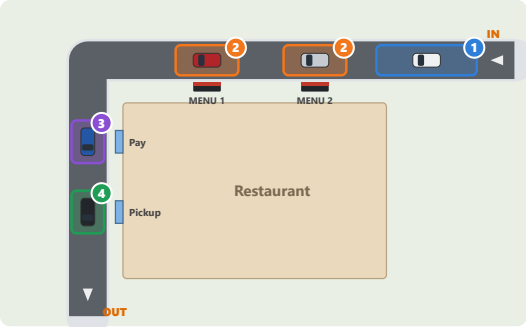


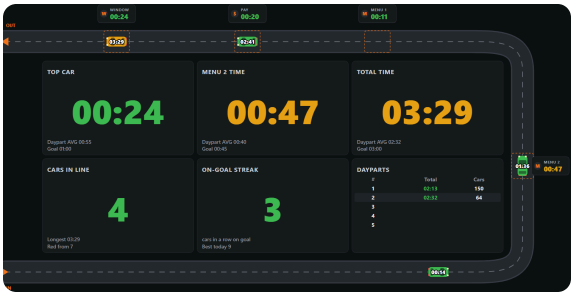


Pick: Lane type **Single lane** · Start from **Line, menu, one window (pay and pick up)**

C. One lane, two menu boards one behind the other (tandem)

One lane with two speaker posts: two cars order at once, the front car at the front board and the next car at the back board.

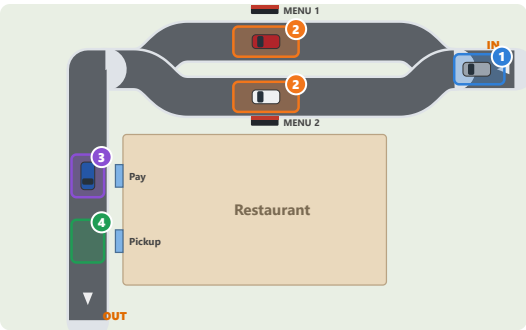


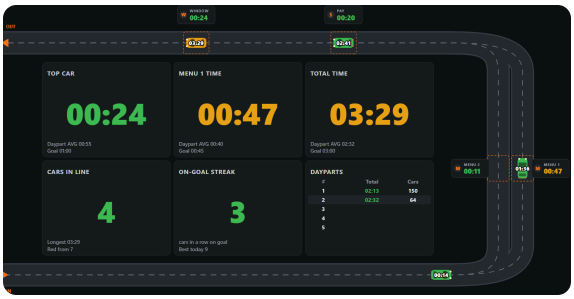


Pick: Lane type **Single lane** · Start from **Line, menu, pay window, pickup window**, then **+ Add a point**, set it to **Order (menu board)** for the second board and move it beside the first with the arrows. Each car is timed at the board it used.

D. Two order lanes that merge into one (a Y lane)

Two lanes side by side at the menu boards, one board each, merging into one lane before the pay window. Also called side-by-side ordering.

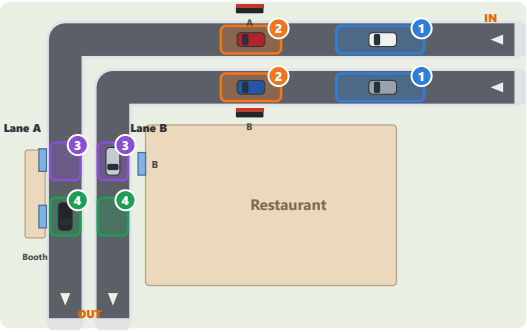


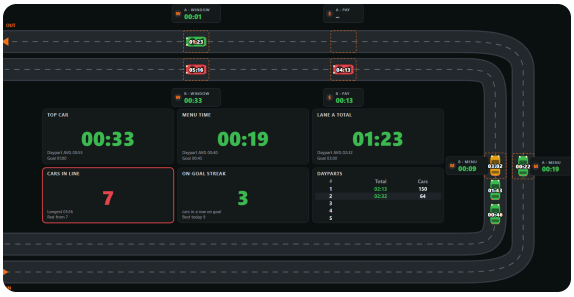


Pick: Lane type **Y lane (two menus, one line)** · Start from **Line, menu, pay window, pickup window**. This gives a line point, Menu 1, Menu 2, pay and pickup. Cars from both menus go on in the order they leave them. The line point is before the lanes split; leave it out if they split at the entrance.

E. Two complete lanes side by side

Two lanes from start to finish, each with its own menu board and its own windows. Cars never move from one lane to the other.





Pick: Lane type **Two lanes (side by side)** · Start from either template; it fills both lanes. Draw each lane's own zones. The board shows each lane's times and a total for both.

Any lane type: the wait bay (pull-forward)

If staff ask cars with a long order to wait in a parking bay, add a **Wait bay (pull-forward)** point after the window. Those cars are counted and timed on their own, so pulling a car aside never makes the lane look faster than the customer's real wait. In drawing A, it is the dashed point 5.

Not sure?

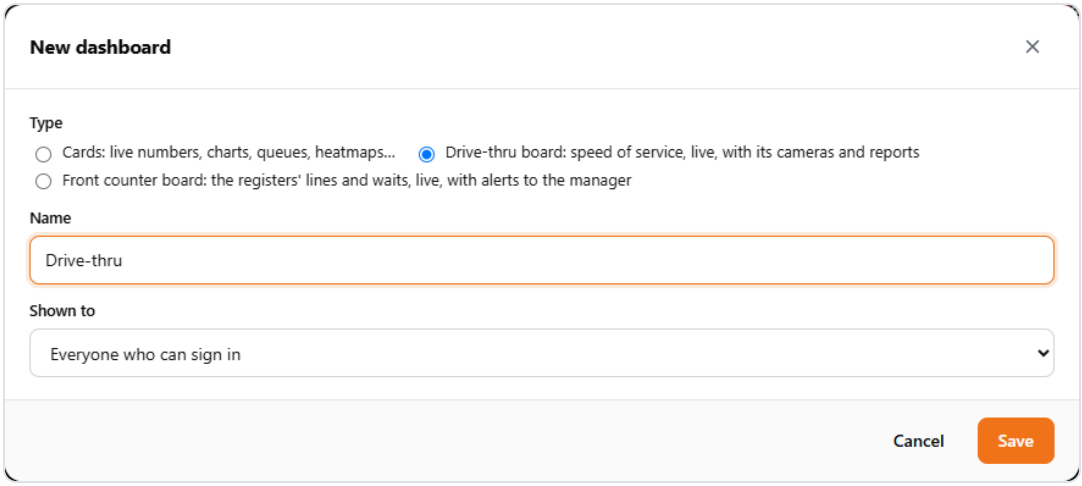
Watch the lane for ten minutes. Count the places where a car stops: that is your list of points, in the order a car meets them. The line point (cars waiting before the menu board) is optional but recommended: without it, the board cannot see the queue grow or count drive-offs.

5 Set up the board, step by step

About fifteen minutes. You need an admin or manager sign-in and the cameras playing in Live View.

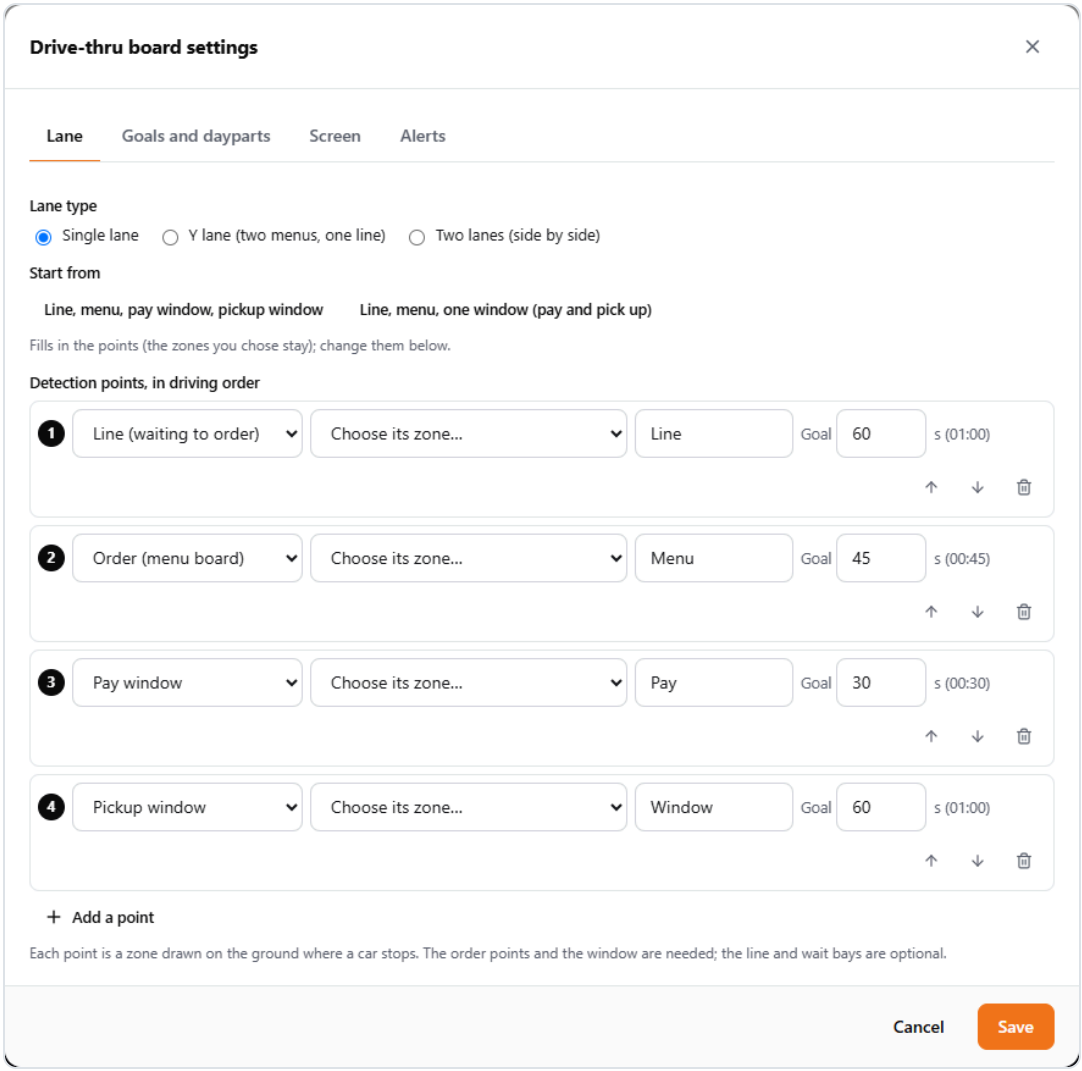
1 Make a new board

Open **Insights** and click the **+** beside the tabs. Choose **Drive-thru board**, give it a name (the store's or the lane's: *Drive-thru*) and pick who sees it under **Shown to**. Click **Save**. The board's settings open at once.



2 Choose the lane type and a starting point

On the **Lane** tab, pick the **Lane type** from section 4, then click a **Start from** button. It lists the points in driving order, each with a usual goal. Every point still needs its zone, so each says *Choose its zone*...



3 Draw each point's zone

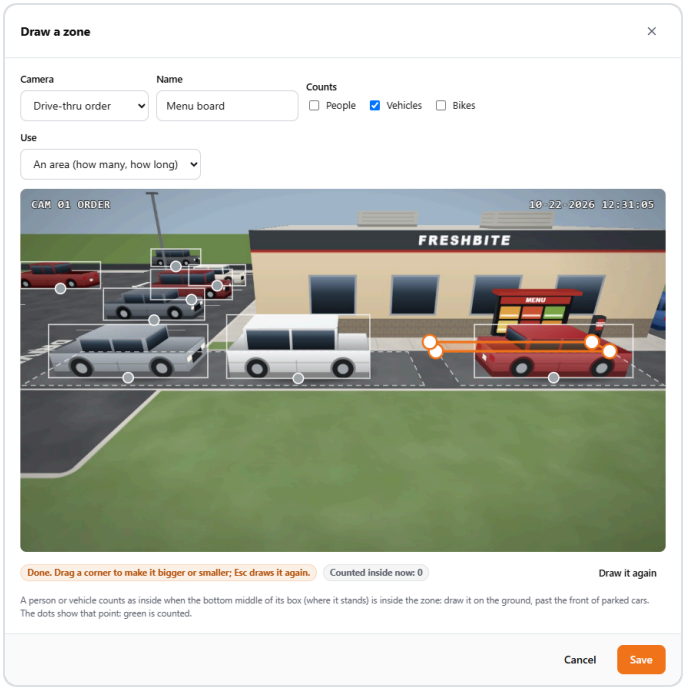
For the first point, open its zone list and choose **+ Draw a new zone...**. In the window that opens:

1. Pick the **Camera** that sees this point and type a **Name** (*Line*, *Menu board*...). **Counts** is already set to vehicles.
2. Click each corner of the area **on the ground where a car stops** at this point, then click the first corner again to close it (or double-click, or press Enter). **Esc** starts again.
3. Watch the dots. Each vehicle the AI sees has a box, and a dot where it stands: the bottom middle of the box. **Green** dots are counted in the zone; grey dots are not. **Counted inside now** says how many.
4. Drag a corner to make the zone bigger or smaller. Click **Save**.

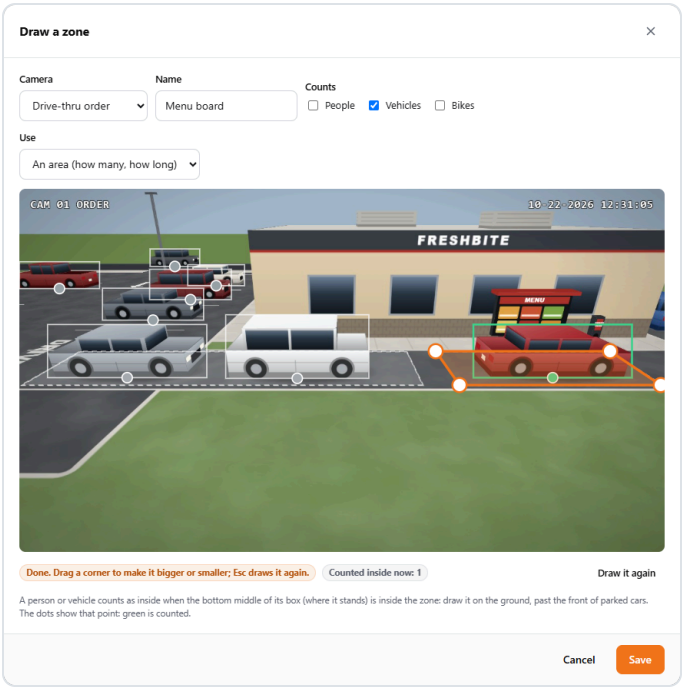
Do the same for each point. The next pages show each zone of the example drive-thru.

Draw the zone where the car stands

The AI judges each car by the point where it touches the ground (the bottom middle of its box), not by its roof or its middle. Draw the zone on the lane where cars stop, wide enough to hold the whole stopping place, and reaching past the car's front and back.



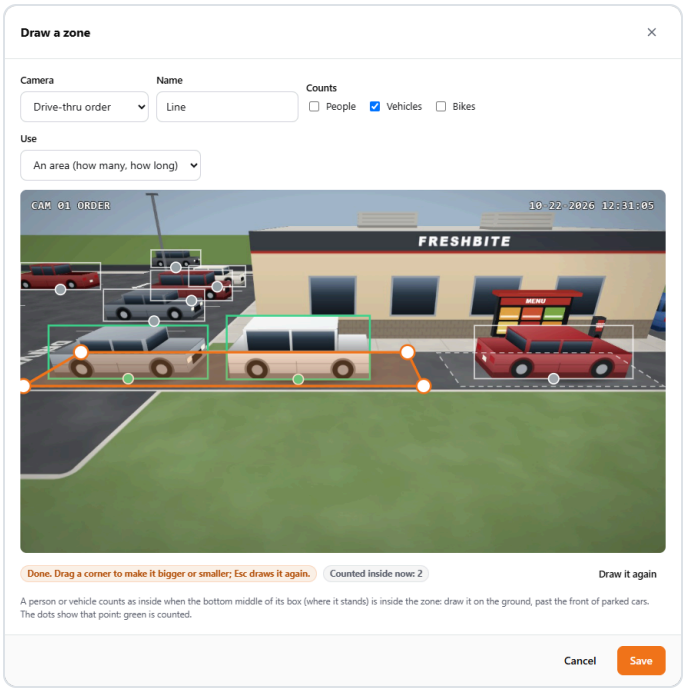
✗ **Wrong:** a thin zone drawn on the curb behind the car. The car's dot (grey) is outside it: *Counted inside now: 0*. The car at the menu board would never be timed.



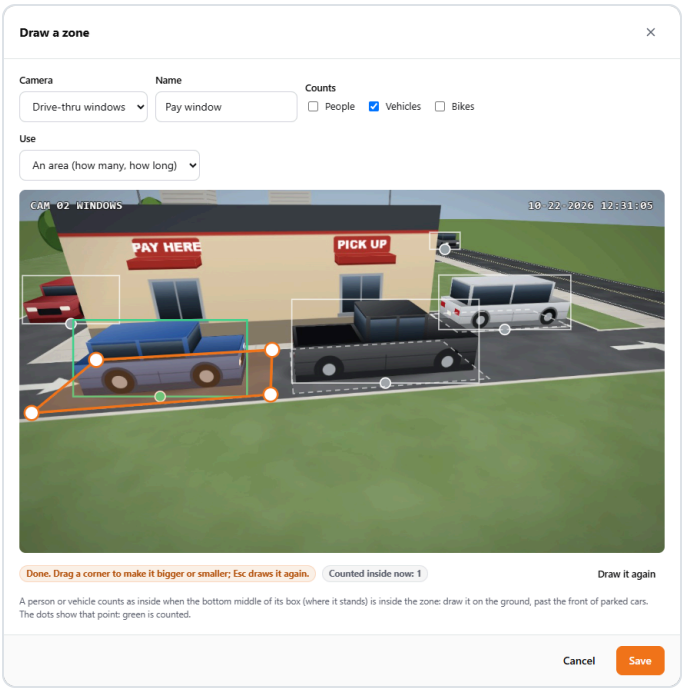
✓ **Right:** the zone covers the lane where cars stop at the menu board. The car's dot is green: *Counted inside now: 1*.

One car per point

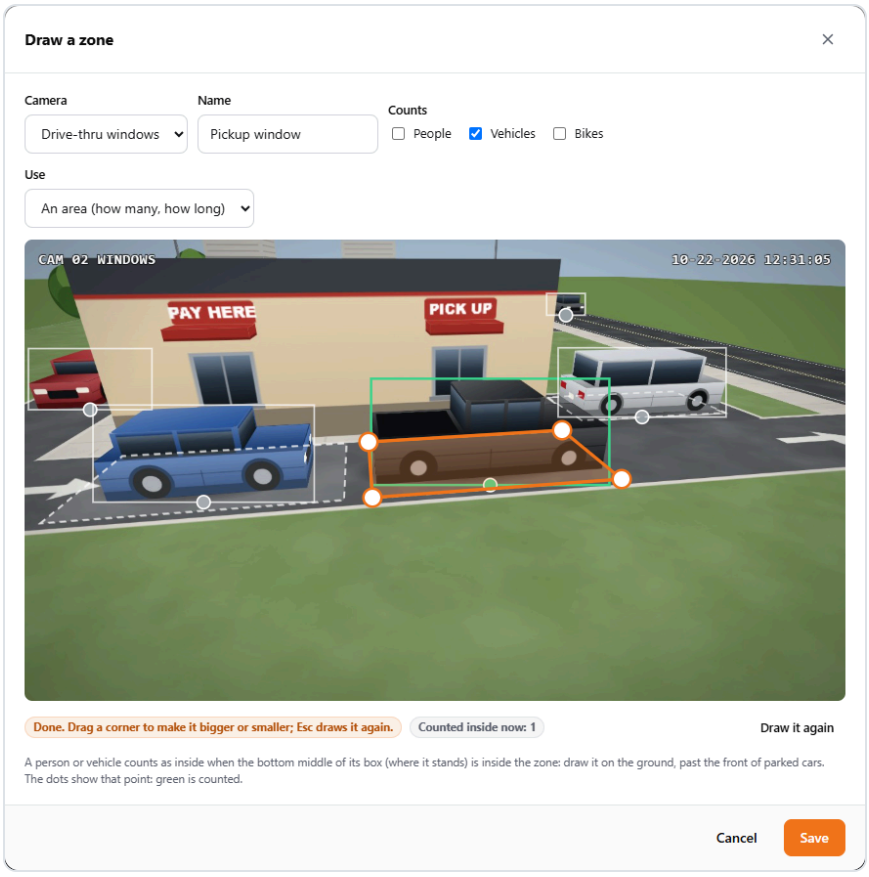
A point's zone should hold the car being served there, not the cars queued behind it. If *Counted inside now* shows two cars at the menu board, the zone reaches back into the line: make it shorter. (The **Line** point is different: it is meant to hold the cars waiting.)



1 Line, camera A: the cars waiting before the menu board, here two (*Counted inside now: 2*). Cover the stretch of lane where the queue forms.



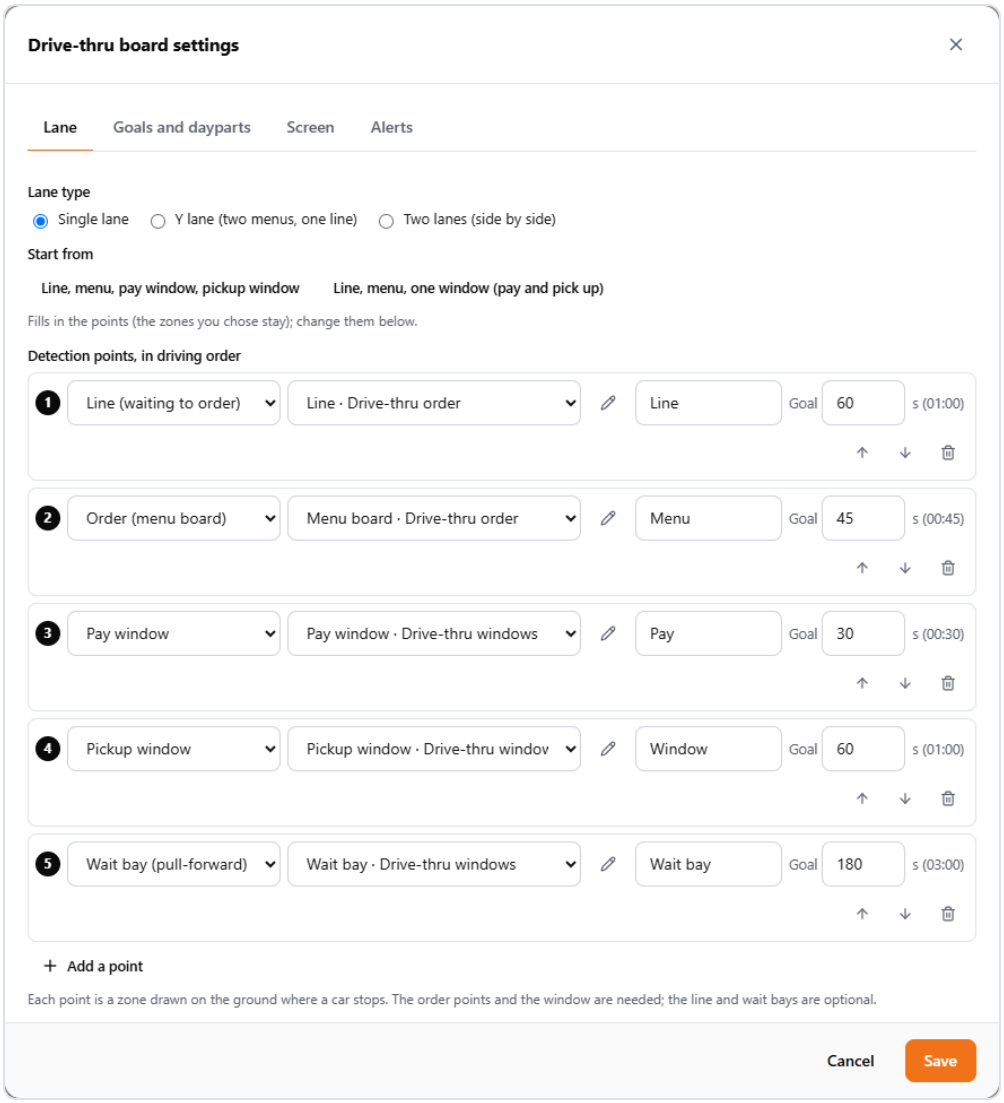
3 Pay window, camera B: the place where the car stands at the pay window.



4 Pickup window, camera B. The pay zone (left) and the pickup zone must not overlap: a car is at one or the other.

4 Name the points and set their goals

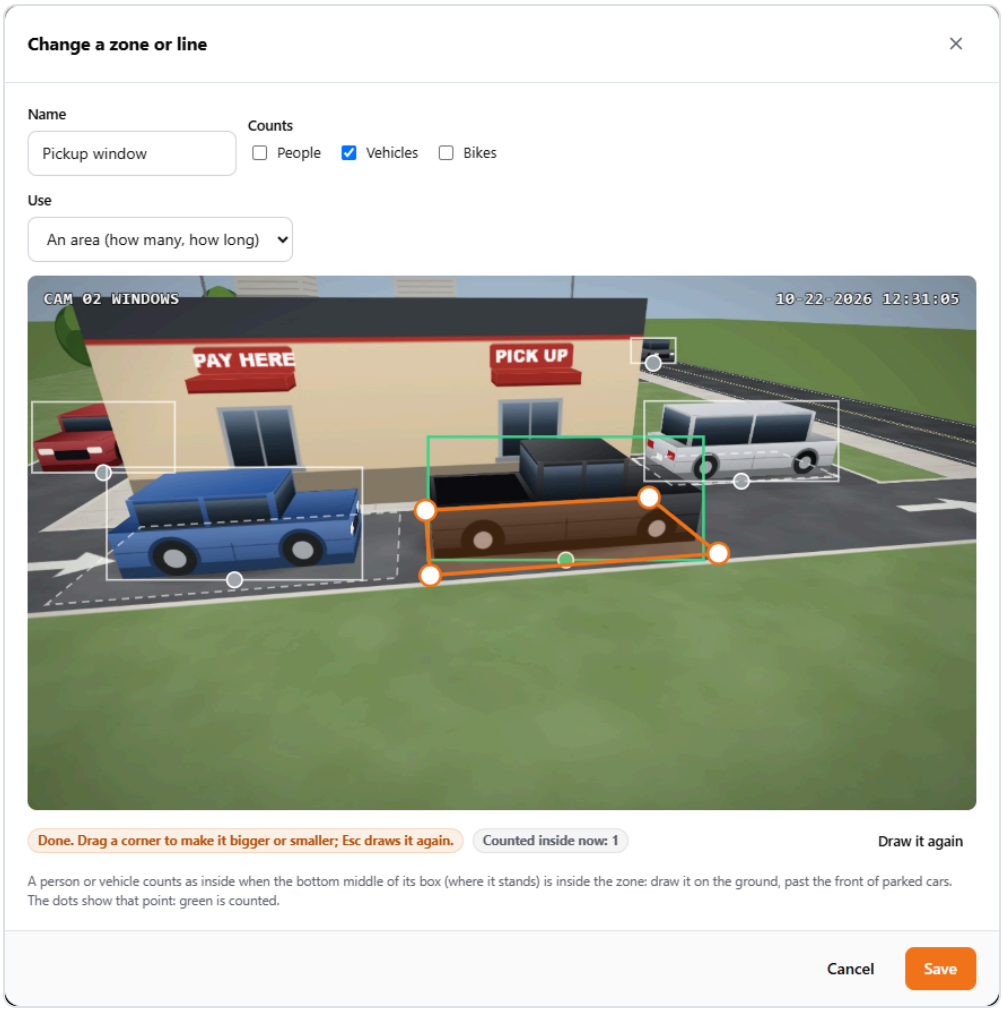
Back on the **Lane** tab, every point now has its zone and the camera that sees it. The name you type is the one on the board's signs (*Menu*, *Pay*, *Window*). The goal is how long a car should take at that point, in seconds. The arrows change the order; the pencil redraws a zone; the bin removes a point.



Point	What it times	Usual goal
1 **Line (waiting to order)**	Waiting in the queue before the menu board	60 s
2 **Order (menu board)**	Ordering at the speaker	45 s
3 **Pay window**	Paying	30 s
4 **Pickup window**	Waiting for the food at the window (90 s when it is also the pay window)	60 s
5 **Wait bay (pull-forward)**	A car sent to wait in a bay for its order	2 to 3 min

5 Save, then check each zone on the live picture

Click **Save**. The board appears at once. Watch a few cars go through. Back in **Edit › Board settings**, the pencil beside a zone opens it on its camera's live picture: the cars there now show their dots, green when counted. Drag its corners to move it; it keeps everything measured so far.



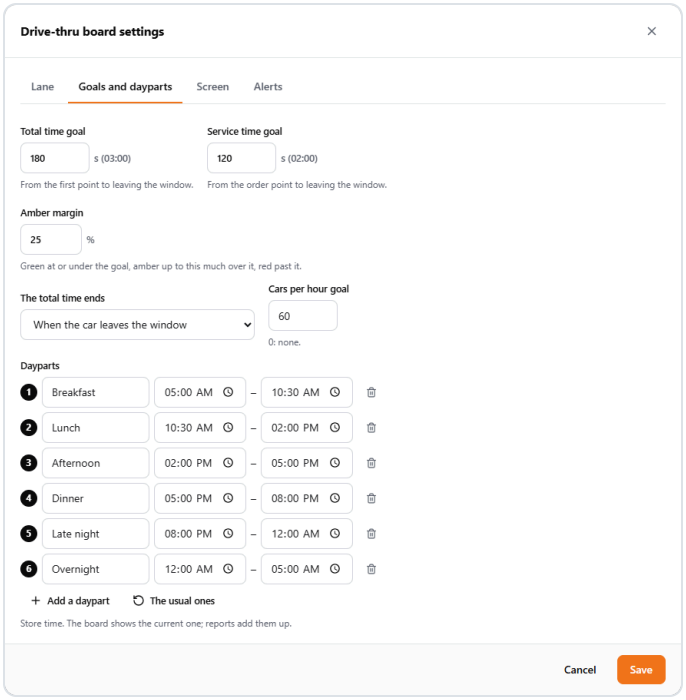
Checking the pickup window's zone: the truck at the window is counted (green dot). The car in the wait bay and the car at the pay window are not, as it should be.

A quick test with a stopwatch
On the first day, time three or four cars yourself from joining the line to leaving the window, and compare with the board's car log (section 9). If a car's time is off, its zones need moving (section 12).

6 Goals, the screen and alerts

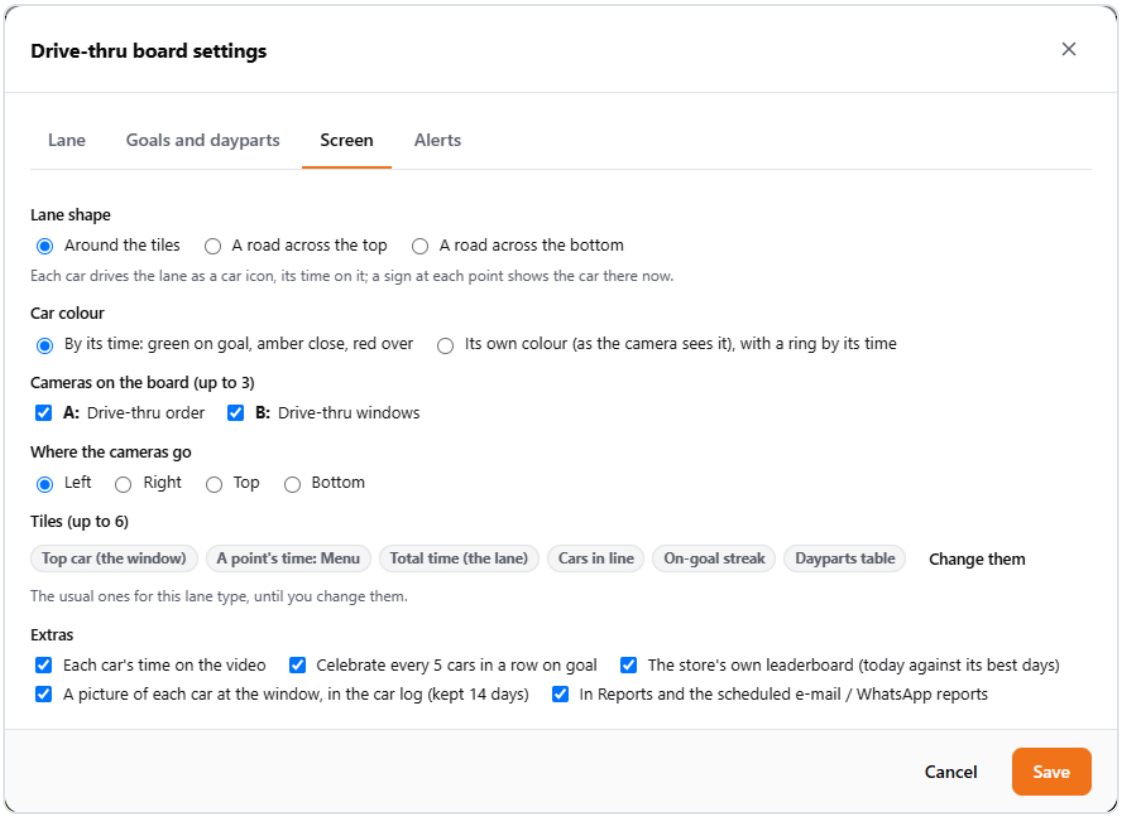
All in **Insights › (the board) › Edit › Board settings**. Change them at any time; past days are worked out again with the new goals.

Goals and dayparts

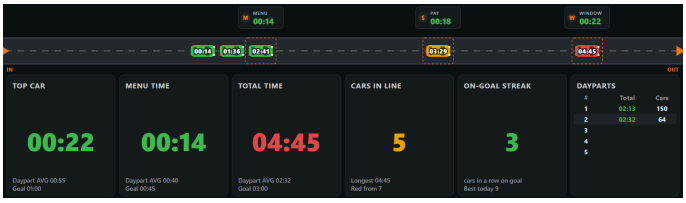


- **Total time goal:** from the first point to leaving the window, the customer's whole wait. A common goal is 3:00.
- **Service time goal:** from the order point to leaving the window, the part the crew controls.
- **Amber margin:** how far over a goal a time is amber before it turns red (25% by default).
- **The total time ends:** when the car leaves the window (usual), or when it leaves a wait bay. The second makes pulled-forward cars count with their real wait.
- **Cars per hour goal:** the target number served in an hour (0 for none). The board shows the pace toward it.
- **Dayparts:** named times of the day (Breakfast 5:00–10:30...). The board shows the current one; the reports add up each. **The usual ones** puts the standard six back.

The screen



- **Lane shape:** the lane round the tiles, or a straight road across the top or the bottom (below). Pick what suits the screen.
- **Car colour:** by the car's time (green, amber, red), or the car's own colour as the camera sees it, with a ring by its time. Staff then match the icon to the real car.
- **Cameras on the board:** up to three, shown as A, B and C, at the left, right, top or bottom.
- **Tiles:** up to six. Until you change them, the board shows the usual ones for its lane type; **Change them** picks your own from: top car (the window), a point's time, total time, service time, cars in line, longest in line, drive-offs, cars per hour, cars this daypart, the car count against the last 2 weeks, the dayparts table, wait bays, the bottleneck this hour, the on-goal streak and the leaderboard.
- **Extras:** each car's time on the video; a small celebration every 5 cars in a row on goal; the store's own leaderboard (today against its best days); a picture of each car at the window in the car log (kept 14 days); the board in Reports and the scheduled reports.

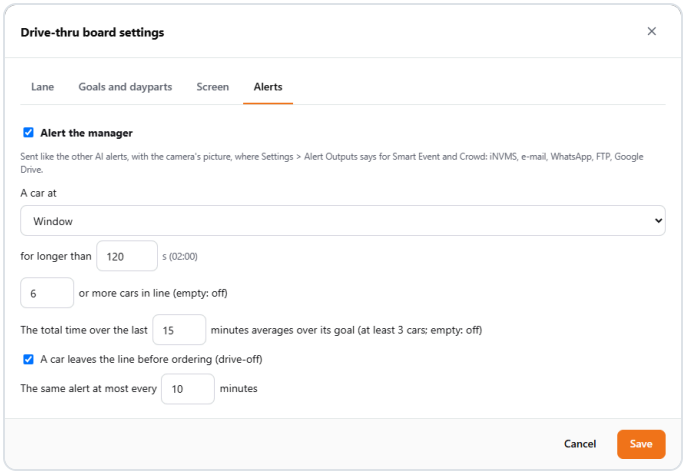


Lane shape: a road across the top, the tiles below it.



Car colour: each car in its own colour, the ring showing its time.

Alerts



Turn on **Alert the manager** and choose what should alert:

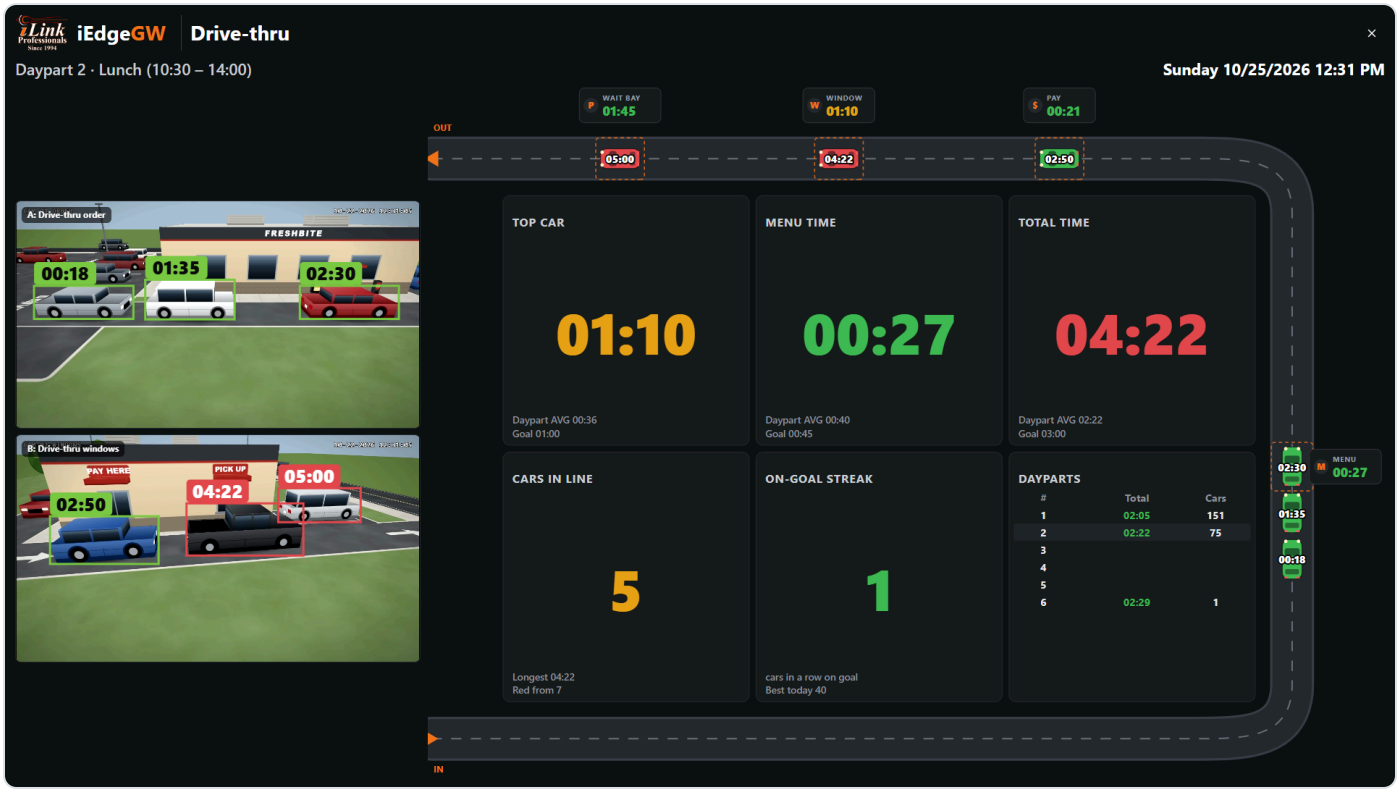
- a car at a point for longer than a time (for example, at the window for over 2 minutes);
- this many cars or more in line;
- the total time over the last minutes averaging over its goal (at least 3 cars);
- a car leaving the line before ordering (a drive-off).

The same alert goes out at most every so many minutes, with the camera's picture. It goes where **Settings › Notifications & Alerts › Alert Outputs** says on the board's own row, **Drive-thru board**: e-mail, WhatsApp, and a copy to an FTP server or Google Drive, at the times you choose there (for example only while the store is open). Set those up first: section 10.

7 Using the board every day

On a screen in the kitchen: TV mode

Click **TV** on the board for full screen, sized for a TV. Press **Esc** to leave. Put the board on a TV in the kitchen or at the window, so the crew sees the cars coming and the times. No PC at that TV? Plug it into the gateway itself: section 8.



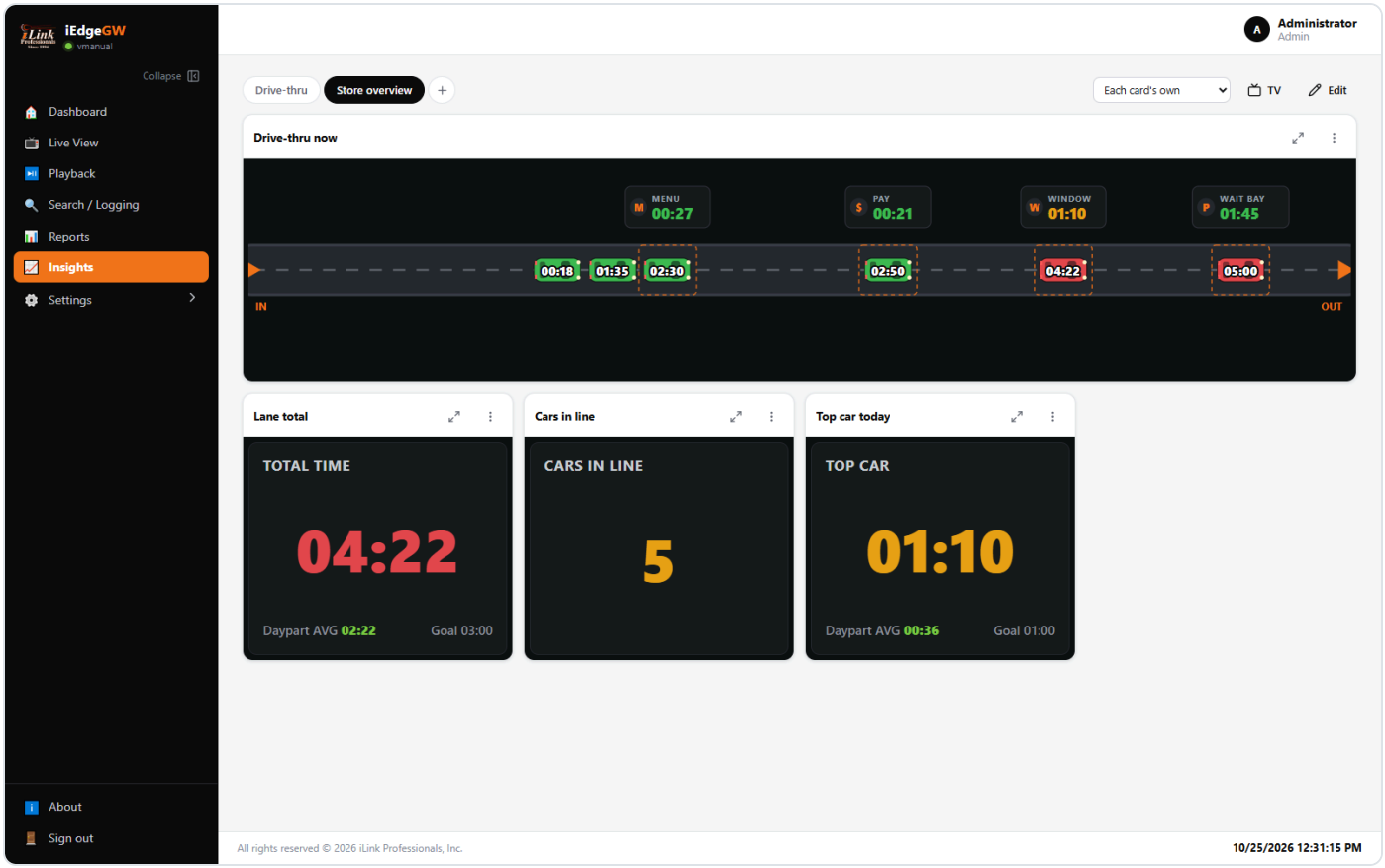
TV mode on a 1920×1080 screen.

Reading it at a glance

- **A red car in the lane** has been in the lane longer than the total time goal. Find it on the camera picture: the same time is over it.
- **A red sign** means the car at that point is taking too long: help that station.
- **Cars in line** going amber or red: open a second order taker, or move a crew member to the window.
- **The dayparts tile** shows each daypart's average and cars so far today, the current one highlighted.
- **The on-goal streak** counts the cars in a row on goal; every 5 gets a small celebration on the screen.

The board's parts on another tab

On any Insights tab, **Edit › Add a card › Drive-thru** adds a part of a board: its lane with each car's time, or any of its tiles. An owner's overview tab can then show the drive-thru beside the store's other numbers.



A "Store overview" tab with the drive-thru lane and three of its tiles as cards.

Who sees it

In **Edit › Dashboard settings**, **Shown to** chooses who sees the board: everyone who can sign in, staff only, or chosen viewers. For the kitchen screen, a viewer account is enough: viewers see the boards shown to them and cannot change anything.

8 A TV with no PC: the gateway's HDMI ports

The gateway has two HDMI ports. One shows the gateway's own screen; the other can show the drive-thru board all day, on its own, with nobody signed in. A kitchen TV needs nothing but an HDMI cable.

1 Plug in the TVs

Any TV or monitor works; 1920×1080 is ideal. Use **HDMI 2** for the kitchen TV (the board) and **HDMI 1** for a screen in the office (the gateway's main screen). A USB mouse and keyboard on the gateway work the main screen.

2 Open Settings › Support › HDMI output

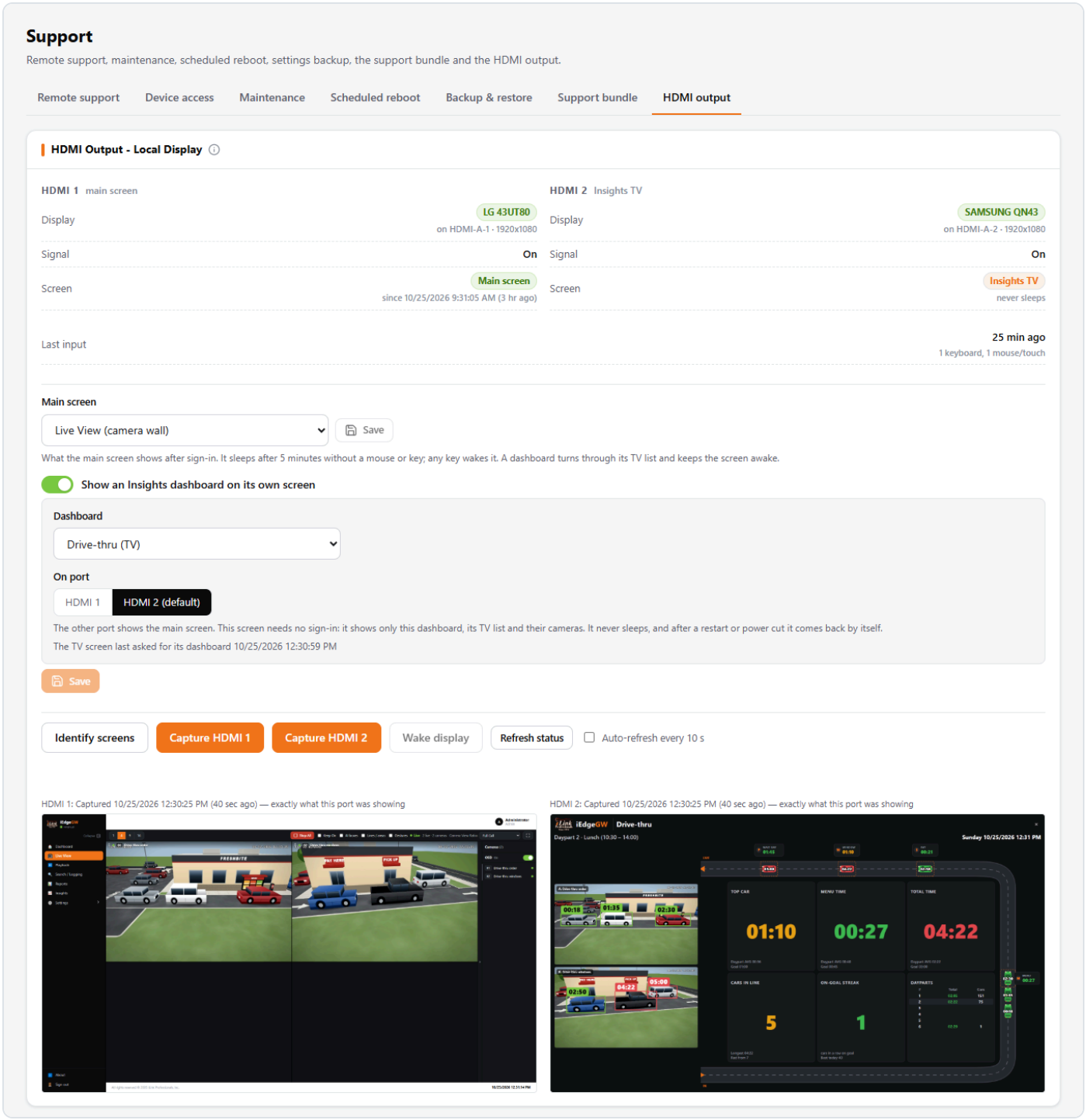
Each port is listed with the display it found (its make and model), whether its signal is on, and what it shows: **Main screen** or **Insights TV**.

3 Put the board on its own screen

Turn on **Show an Insights dashboard on its own screen**, choose **Drive-thru (TV)** under **Dashboard**, keep **On port** at **HDMI 2 (default)** (or the port the kitchen TV is on) and click **Save**. Both screens start again in about 15 seconds; the kitchen TV then shows the board in TV mode.

4 Check it from here

Identify screens shows each port's name on its TV for 10 seconds. **Capture HDMI 1** and **Capture HDMI 2** show, on this page, exactly what each TV is showing: check the kitchen TV from the office, or from anywhere through the gateway's remote address.



Settings › Support › HDMI output: an LG in the office on HDMI 1 (the main screen, Live View) and a Samsung in the kitchen on HDMI 2 showing the drive-thru board. At the bottom, the captures of what each TV shows.

- **The board's screen** needs no sign-in: it shows only that dashboard (and the dashboards in its TV list) and their cameras, nothing else of the gateway. It never sleeps, and after a restart or a power cut it comes back by itself. Choosing another dashboard reaches the TV within 30 seconds.
- **The main screen** asks for a sign-in, then shows what **Main screen** says: **Live View (camera wall)**, or an Insights dashboard in TV mode. It sleeps after 5 minutes without a mouse or key; any key wakes it. A dashboard keeps it awake.

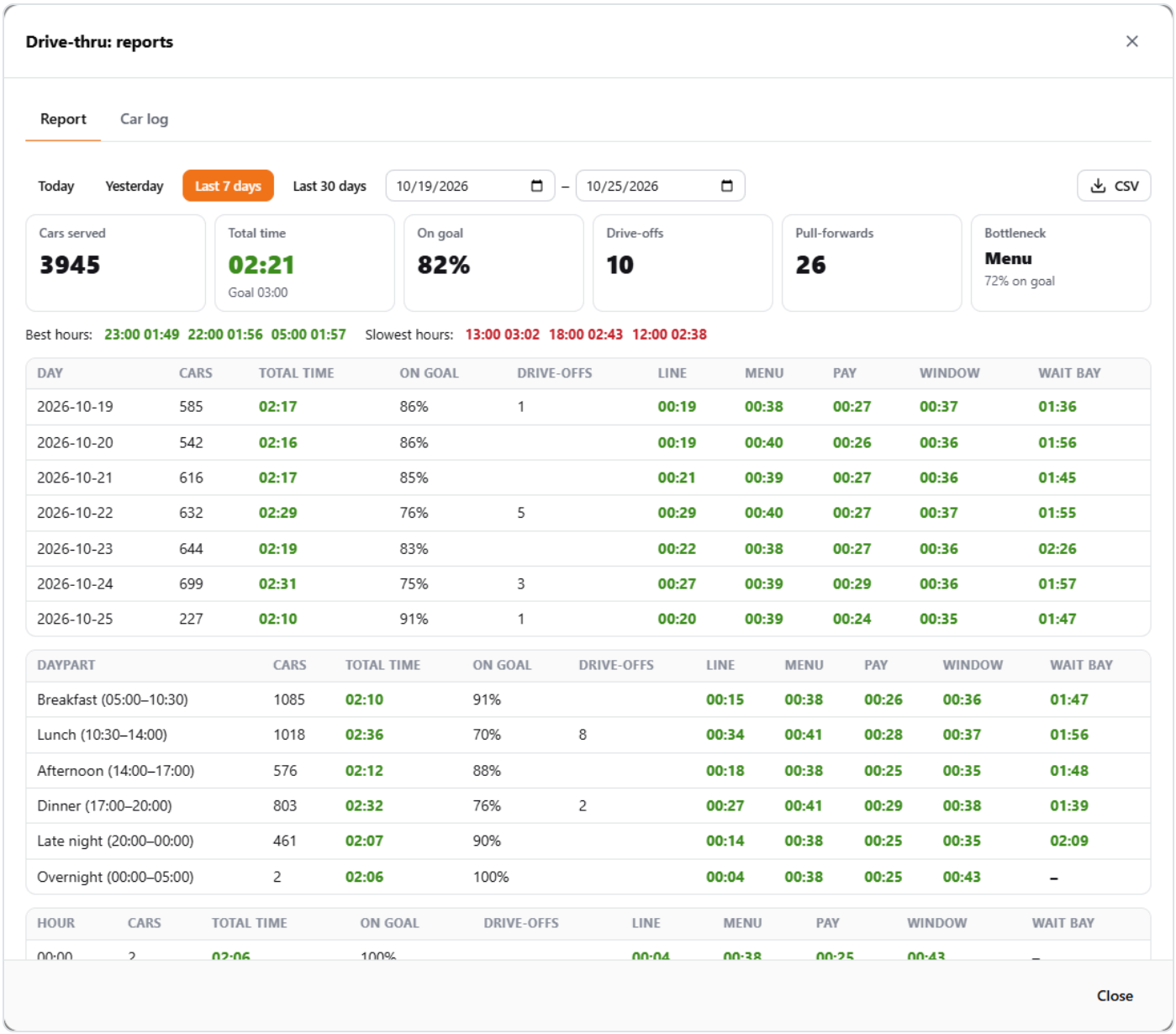
> **Who can change it**
> Settings › Support is for admins: sign in with an admin account to set the screens up.

9 Reports

Every car is kept, so the board can answer: how fast were we, when were we slow, and which station held us up.

The board's reports

Click **Reports** on the board. Choose **Today**, **Yesterday**, **Last 7 days**, **Last 30 days** or any dates.

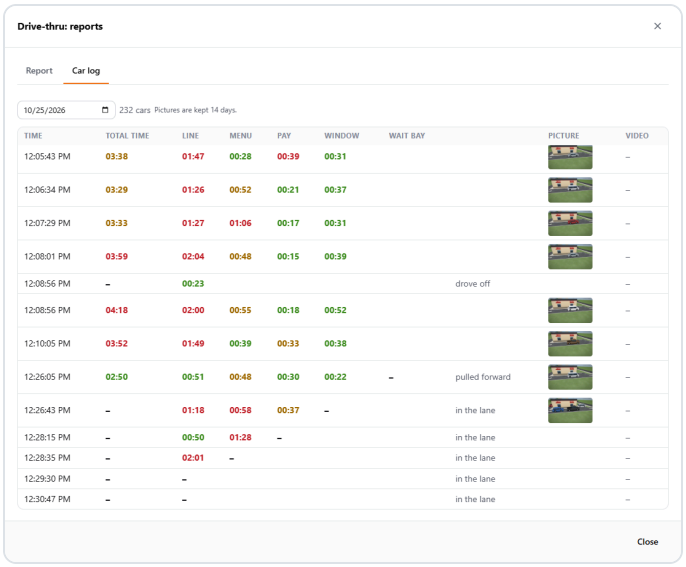


- **At the top:** cars served, the average total time against its goal, the share on goal, drive-offs, pull-forwards, and the **bottleneck** (the point that cost the most time over its goal).

- **Best and slowest hours** of the period.
- **By day, by daypart and by hour:** cars, total time, share on goal, drive-offs and each point's average, each coloured against its goal.
- **CSV** downloads the same numbers for a spreadsheet.

The car log: every car of a day

The **Car log** tab lists every car of a day: when it arrived, its total time, its time at each point, and notes (*pulled forward*, *drove off*, *in the lane* for cars there now). Each car has a **picture at each stop** (the menu board, pay, the window and the wait bay; the line has none) and a **clip** from that point's camera that starts 10 seconds before the car got there; click a picture to see it large. Pictures are kept 14 days.

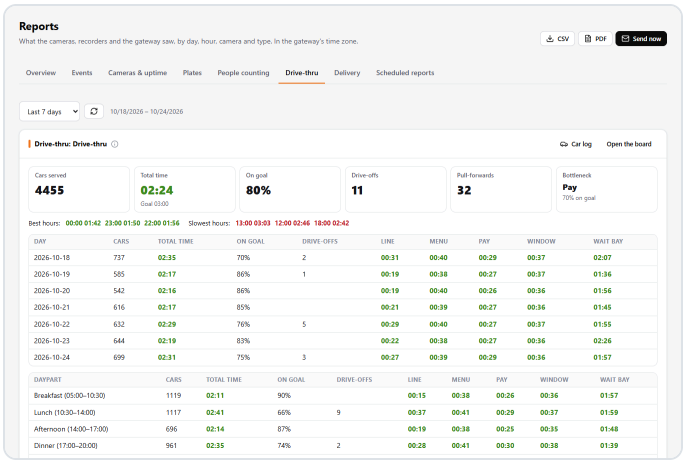




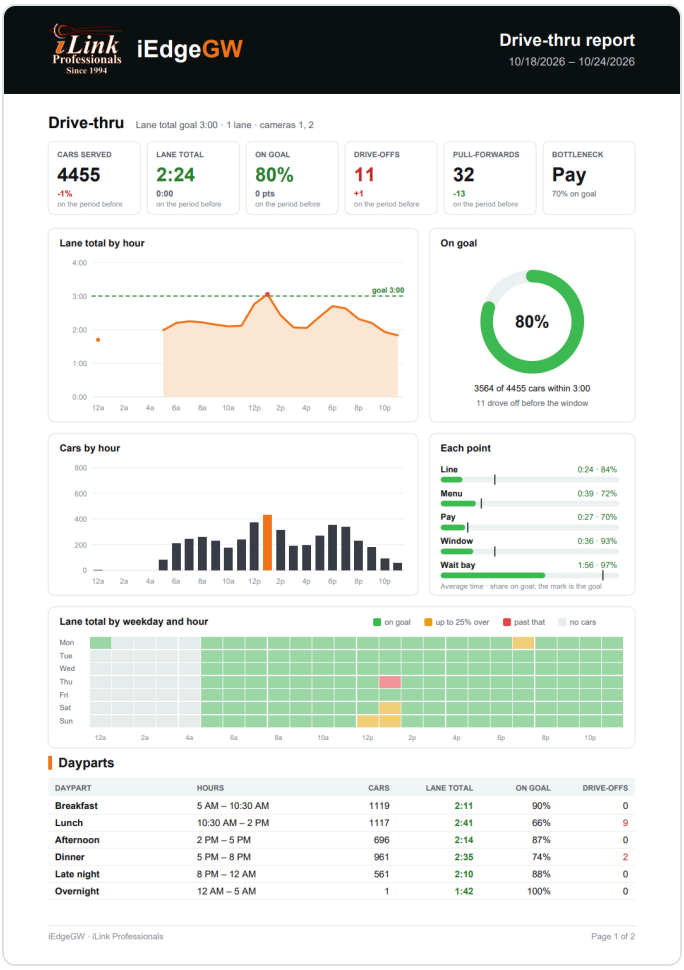
A car's picture at the window, enlarged. Pictures are kept 14 days.

The Reports page and the drive-thru report

In **Reports**, the **Drive-thru** tab shows each board's report for the chosen period, beside the gateway's other reports. On that tab, **PDF** downloads **the drive-thru report** on its own: for each board, its figures against the period before, the lane total by hour against the goal, the share on goal, cars by hour, each point, the week by weekday and hour, and the dayparts and days. **Send now** sends it by e-mail, WhatsApp, or as the PDF to the FTP server or Google Drive. The drive-thru is also part of the gateway's activity report and its CSV.



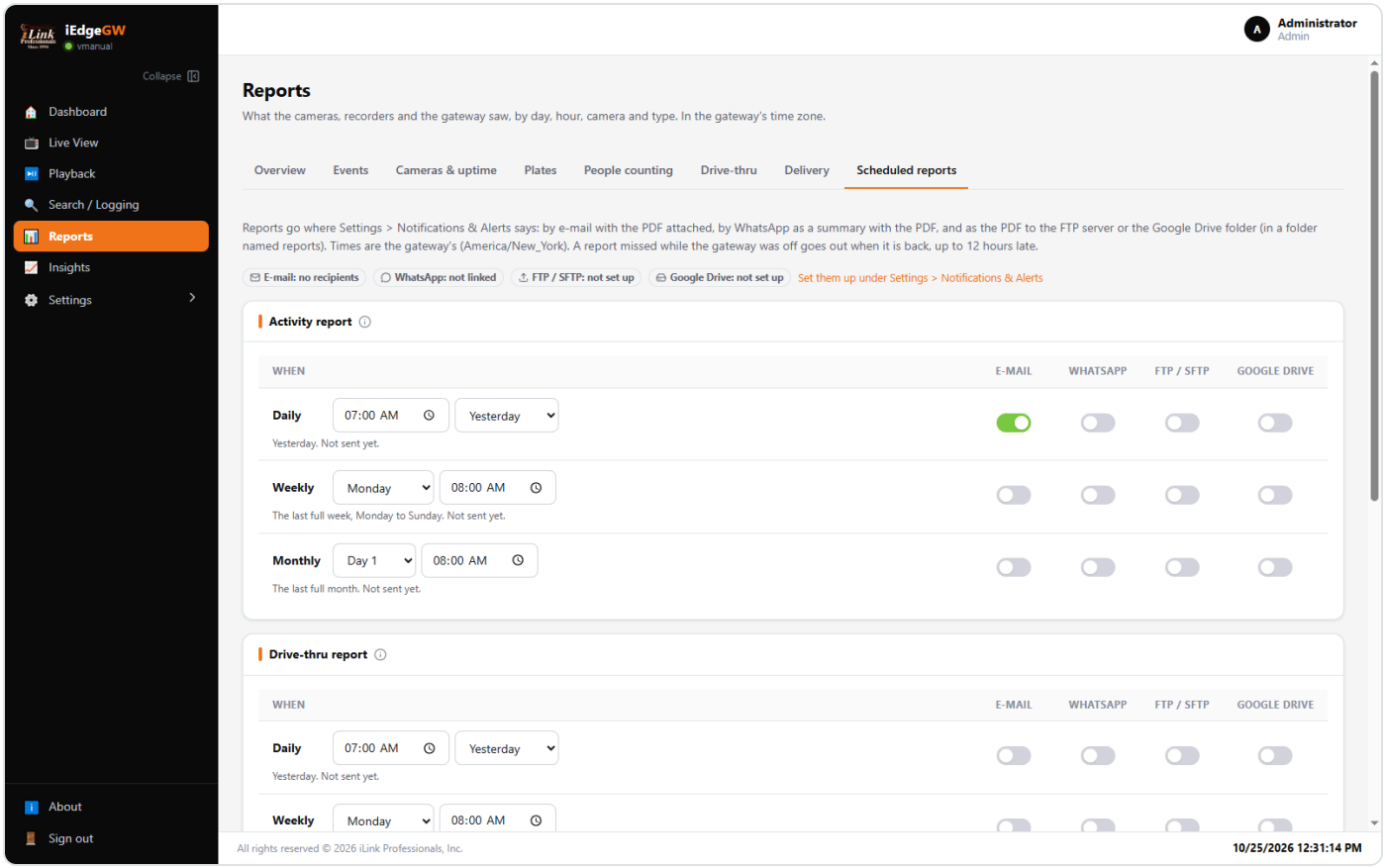
Reports › Drive-thru.



The drive-thru report's PDF, its first page.

Reports sent by themselves: daily, weekly, monthly

On **Reports › Scheduled reports**, each report has its own **Daily**, **Weekly** and **Monthly** rows. For the **Drive-thru report**, choose the time (and the weekday or day of the month), then switch on where it goes: **E-mail** (the PDF attached), **WhatsApp** (a summary and the PDF), **FTP / SFTP** or **Google Drive** (the PDF, in a folder named *reports*). Click **Save**. Above the reports, each way says whether it is ready; set them up first (section 10). A report missed while the gateway was off goes out when it is back, up to 12 hours late. Each row shows when it was last sent; whether the mail server took it is on the **Delivery** tab.



Reports › Scheduled reports: the activity report by e-mail every morning; the drive-thru report's own rows below it.

> **A board that should not be in the reports**
> Untick **In Reports and the scheduled e-mail / WhatsApp reports** in its Screen settings (a test board, for example).

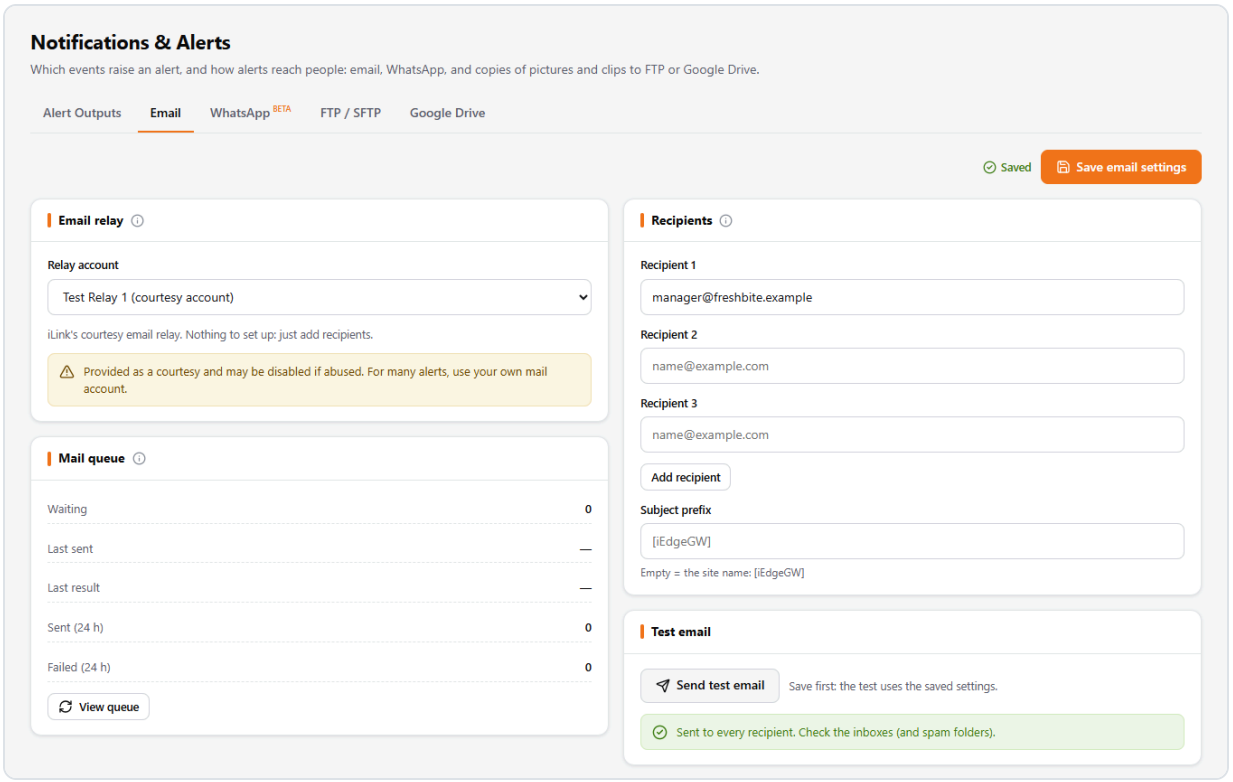
10 Where alerts and reports go

The board's alerts and the reports leave the gateway the ways you set up once, for the whole gateway, in **Settings › Notifications & Alerts**: e-mail, WhatsApp, and copies to an FTP / SFTP server or Google Drive. Set them up and test each one before turning the board's alerts on.

E-mail

1. Open the **Email** tab. Under **Relay account**, the easiest is **Test Relay 1 (courtesy account)**: iLink's own mail relay, nothing to set up. For many alerts or your own sender address, choose your mail provider (Gmail, Yahoo, Outlook.com, Microsoft 365, GoDaddy) and enter its account and password, or **Custom SMTP** for any other mail server.
2. Type the managers' addresses under **Recipients** (**Add recipient** for more).
3. Click **Save email settings**, then **Send test email**. *Sent to every recipient* means the mail server took it: check the inbox, and the spam folder the first time.

Mail queue shows what is waiting, sent and failed in the last 24 hours; **View queue** lists each message with its result.



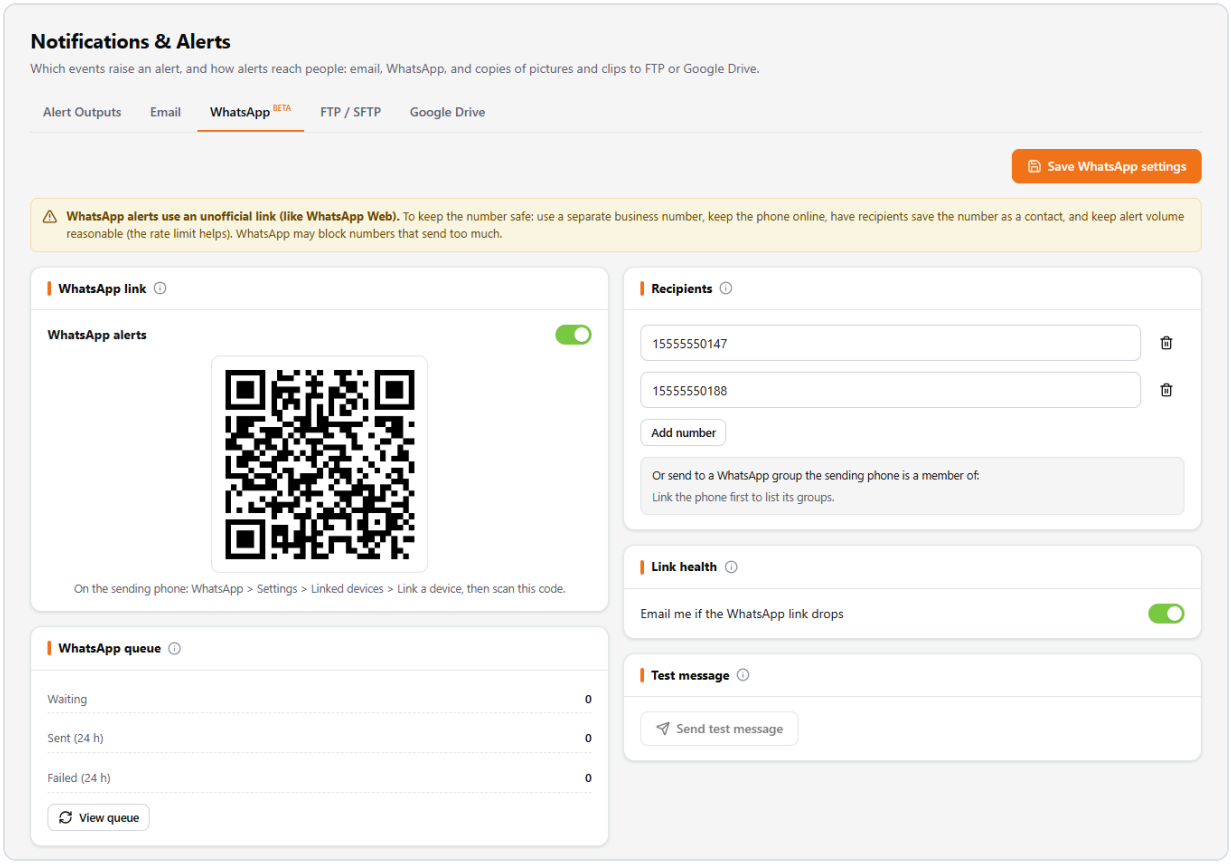
The Email tab: Test Relay 1, the manager's address, saved, and a test sent.

WhatsApp

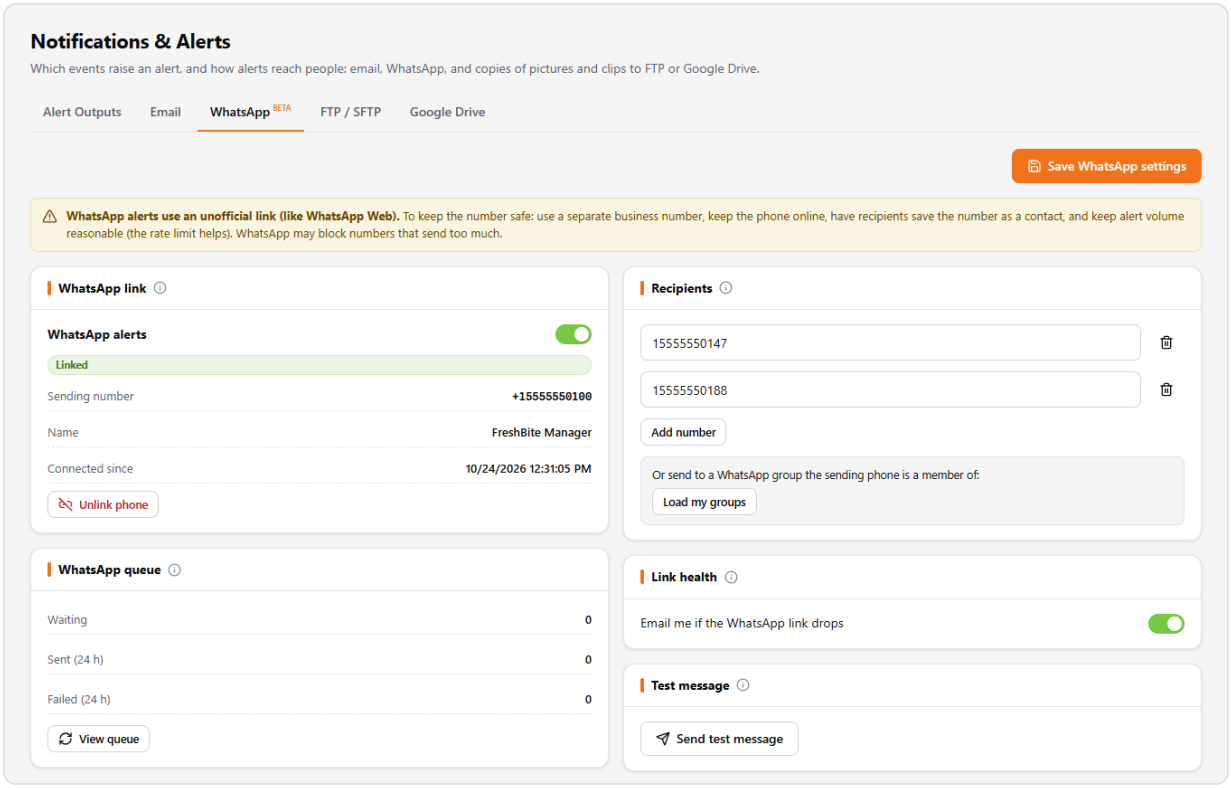
1. Choose the phone that will **send** the alerts: a separate business number is best, kept charged and online (the page explains why).
2. On the **WhatsApp** tab, turn on **WhatsApp alerts**. A QR code appears in a few seconds.

3. On that phone: **WhatsApp › Settings › Linked devices › Link a device**, and scan the code. The card then says **Linked**, with the sending number. The link survives restarts and updates.
4. Under **Recipients**, add each number in international format, country code first (for the US: 1, the area code, the number). Once linked, **Load my groups** lets you send to a WhatsApp group instead.
5. Click **Save WhatsApp settings**, then **Send test message**.

Keep **Email me if the WhatsApp link drops** on: if the phone is unlinked or offline, the e-mail recipients hear about it.



Switched on: the code to scan with the sending phone (this one is a sample picture).

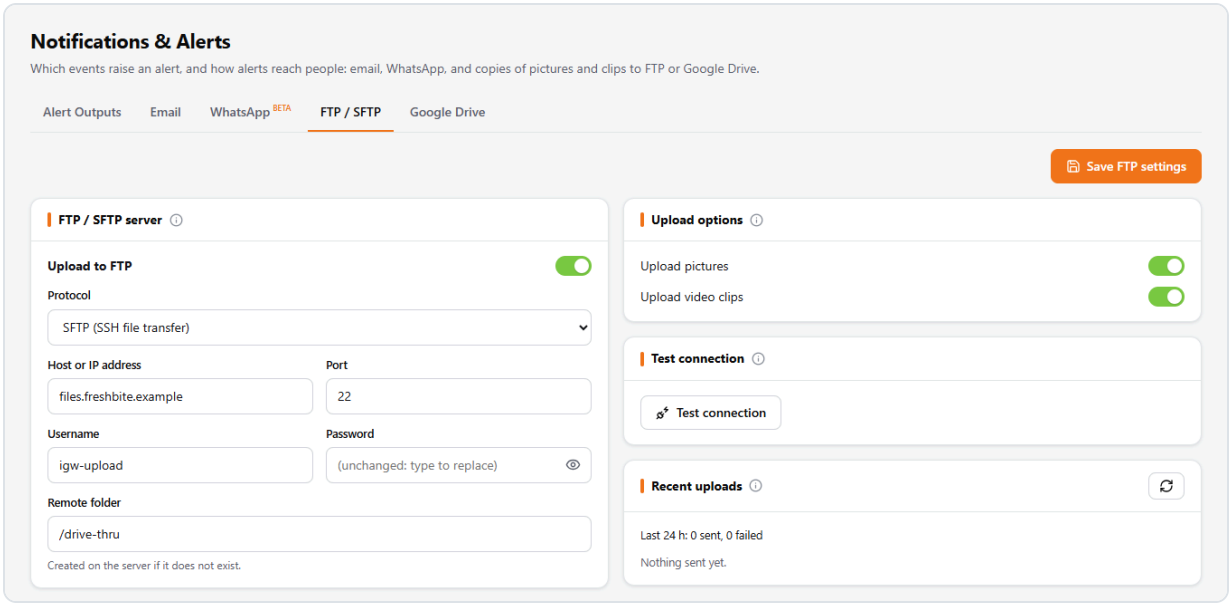


Linked: the sending number, and the two numbers that receive the alerts.

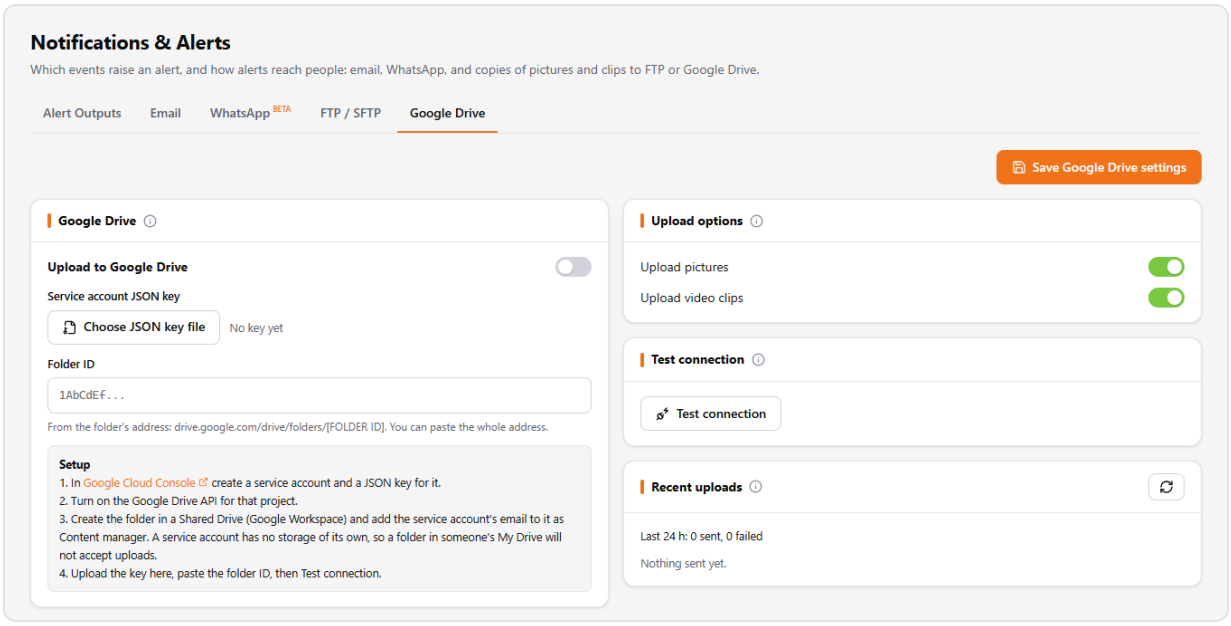
Copies to an FTP / SFTP server or Google Drive

Each alert's picture, its text and its video clip, and each report's PDF, can also be copied to a server or a Google Drive folder, kept as long as you like. Files go in a folder per day, named by date, time, camera and event; reports go in a folder named *reports*.

FTP / SFTP: turn on **Upload to FTP**; choose the protocol (SFTP is the safest), the server, its port, the account and the folder (made if missing). Click **Save FTP settings**, then **Test connection**: it writes a test file and removes it.



Google Drive needs Google Workspace: a **service account** key, and a folder in a **Shared Drive** with that service account added as Content manager (the page's Setup box has the four steps; a folder in someone's own My Drive does not take uploads). Upload the key, paste the folder's address, turn it on, save, then **Test connection**.

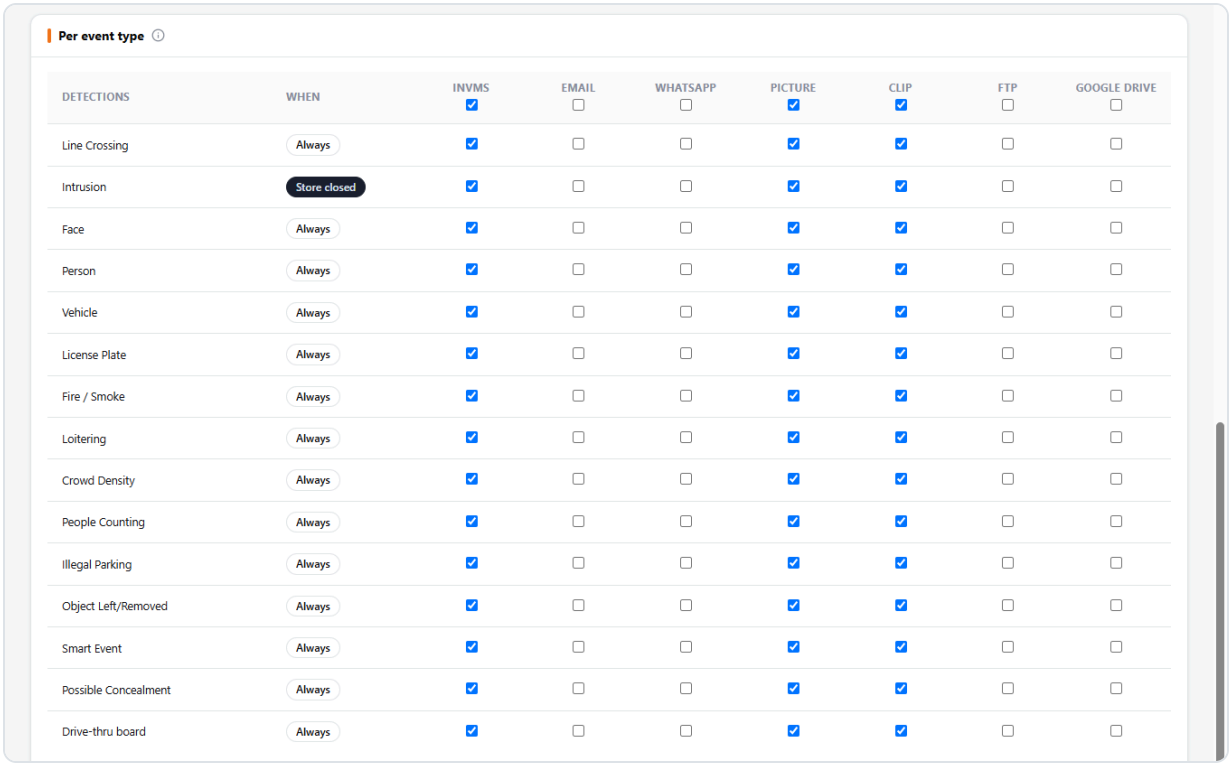


Recent uploads on each tab lists every upload of the last 24 hours with its result.

Which alerts go where: Alert Outputs

On the first tab, **Alert Outputs**, each kind of event is a row. Tick where it goes: **Email**, **WhatsApp**, **FTP**, **Google Drive**; **Picture** and **Clip** add the camera's picture and a short video. Then **Save**.

The drive-thru board's alerts (a car too long at a point, the lane total over its goal, too many cars in line, a drive-off) have their own row: **Drive-thru board**. The reports do not use these rows: each report's own schedule says where it goes (section 9).



Alert Outputs: each kind of alert, when it is sent, and where it goes; the Drive-thru board's own row at the end.

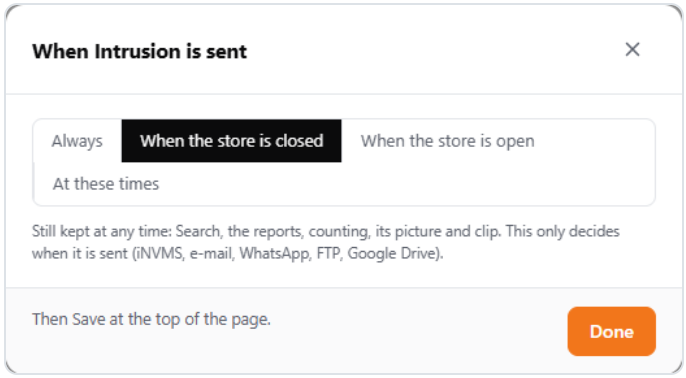
When alerts are sent: store hours and alert times

Every alert is always **kept**: in Search with its picture and clip, in the reports and in counting. What you choose here is when it is **sent**. For example: a line crossing or an intrusion on the back lot only after closing and at weekends, while the drive-thru board's alerts go out only while the store is open.

1. On the **Alert Outputs** tab, fill in **Store hours**: each day's opening and closing time (or **Closed**), and the **Closed days** such as Christmas, when the store is closed all day. Hours past midnight run into the next day. Click **Save store hours**.
2. In the **When** column, click a row's time (it starts at **Always**) and choose **Always**, **When the store is closed**, **When the store is open**, or **At these times** (days and hours, as a line's schedule). Click **Done**, then **Save** at the top.
3. One line or area needs its own time (the back door, day and night)? In **Settings › Analytics**, select it: under its **When** (when it detects) is **Sends alerts**: **Like Alert Outputs**, or its own time. Save the page.



Store hours: open Monday to Friday 6 AM to 10 PM, Saturday 7 AM to 11 PM, closed Sunday.



A row's time: Intrusion, sent when the store is closed.

Outside its time, an alert goes nowhere: not by e-mail, WhatsApp, FTP or Google Drive. In Search it is marked **Not sent**, with the reason (*the store was open*). A test from **Settings › Tools** always goes. Until the store hours are saved, the store's-hours choices send at any time.

> **Test before you rely on it**
> **Send test email**, **Send test message** (WhatsApp) and **Test connection** (FTP, Google Drive) each prove one way works. Then turn on the board's alerts (section 6) and its scheduled report (section 9).

11 How the times are measured

So you can explain any number on the board or in a report.

Term	What it is
A point's time	How long a car stood in that point's zone. A car must stop at least 2 seconds to count at a point; one driving through is not timed there.
Total time (lane total)	From the car entering the first point to leaving the window (or the wait bay, if the settings say so). The customer's whole wait.
Service time	From the order point to leaving the window.
On goal	The share of cars whose total time was at or under the total time goal.
Cars served	Cars that left the window (pulled-forward cars included, once).
Drive-off	A car that waited in the line point (at least 10 seconds) and left without reaching the order point.
Pull-forward	A car seen in a wait bay after the window. It is counted and timed on its own, and the total time still runs to the window (or to the bay, if you choose), so pulling cars aside never makes the lane look faster than it is.
Bottleneck	The point whose cars spent the most time over its goal in the period.
A car between cameras	On one camera, the AI follows the same car from point to point. Between two cameras, the cars keep their order: the next car to arrive at a point is the earliest one that left the point before it.
A car seen first mid-lane	It counts at the points it was seen at, but not for the total time (its start was not seen). A car that drives straight to the menu board past an empty line counts with a line time of 0.

12 When something looks wrong

What you see	What to do
A car at a point is not on the board	Open the point's zone (pencil). If the car's dot is grey, the zone is not where the car stands: redraw it on the ground, bigger, past the car's front and back.
Two cars at a point that serves one	The zone reaches into the line behind it. Make it shorter, so it holds only the car being served.
A point's times are much too long	The zone also covers a place where cars wait before the point. Move the zone to where cars stop at the point itself.
Cars appear and disappear, or are "lost" between points	A point is not seen well: a car hidden behind another car, a pillar, or the picture's edge. Check each zone on the live picture. If a camera cannot see a point properly, move or add a camera.
Drive-offs that did not happen	The line zone covers part of the parking lot or a bypass lane, where cars leave without having been in the line. Keep it on the drive-thru lane only.
"Camera offline" or "No picture" on the board	The camera is not sending video. Check it in Live View and in **Settings › Cameras / NVR**.
Times are right but the hours are wrong	The gateway's time zone is wrong: **Settings › Date / Time**.
Car colours are grey at night	The camera is in infrared (night) mode, which has no colour. Times are not affected.
The board says to set up the lane first	A point's zone was removed. Open **Board settings** and draw it again.
A camera is "Waiting: no capacity" in Settings › Analytics	The gateway's AI is full. Free a camera elsewhere or ask iLink about a larger gateway.
The kitchen TV is black, or shows the wrong thing	**Settings › Support › HDMI output**: is the TV found on its port, with its signal *On*? Is **On port** the port the TV is plugged into? **Capture** shows what the TV shows.
The test e-mail fails	Read the message under **Send test email**. With a courtesy relay, try the other one or your own mail account. With your own account, check the address and password (Gmail needs an app password).
No QR code on the WhatsApp tab	The gateway needs the internet: wait a few seconds after switching it on. If a message shows instead of the code, note it for iLink support.
WhatsApp alerts stopped	The sending phone unlinked the gateway or is offline. A new QR code appears on the WhatsApp tab: scan it again. With **Email me if the WhatsApp link drops** on, the e-mail recipients are told.
Nothing arrives on the FTP server or in Google Drive	**Test connection** on its tab; **Recent uploads** shows each upload's result. Google Drive needs a folder in a Shared Drive. Check that **Alert Outputs** ticks FTP or Google Drive for the Drive-thru board.

An alert did not come at night, or in the day	Look at its **When** in Alert Outputs (and the line's own **Sends alerts** in Analytics) and at the store hours. In Search the event says **Not sent** and why.
A scheduled report did not arrive	**Reports › Scheduled reports** shows when each was last sent; the **Delivery** tab shows whether the mail server or WhatsApp took it.

> **Changing the board later**
> Moving a zone with its pencil keeps everything measured so far. Changing goals works the past days out again with the new goals, so the reports always compare like with like. Choosing a *different* zone for a point starts that point's history again, so move a zone rather than replace it.

13 Setup checklist

Print this page and tick it off on site.

Before

- [ ] The cameras see every point: the line, the menu board(s), the window(s), the wait bay.
- [ ] Each camera plays in Live View; its sub stream is H.264, up to 720p, 10–15 frames a second.
- [ ] The gateway's date, time and time zone are right.
- [ ] Settings › Analytics shows room for the drive-thru cameras.
- [ ] I know the lane type (section 4) and whether there is a wait bay.

Set up

- [ ] Insights › + › Drive-thru board, named, shown to the right people.
- [ ] Lane type and Start from picked.
- [ ] Each point has its zone, drawn on the ground where cars stop; the dots of the cars there are green.
- [ ] No point's zone reaches into the line behind it; the pay and pickup zones do not overlap.
- [ ] Names and goals set; the total time goal and dayparts set.
- [ ] Screen: lane shape, car colour, cameras, tiles.
- [ ] Settings › Notifications & Alerts: e-mail recipients saved and a test e-mail received; WhatsApp linked and a test message received (if wanted); FTP or Google Drive tested (if wanted).
- [ ] Alerts on (if wanted); Alert Outputs sends the Drive-thru board's row where the manager sees it, at the right times (store hours saved).

After

- [ ] Watched ten cars go through on the board: each one appeared at each point.
- [ ] Timed three or four cars with a stopwatch; the car log agrees.
- [ ] The kitchen TV shows the board: on the gateway's HDMI 2 (Settings › Support › HDMI output), or TV mode on a PC.
- [ ] The drive-thru report scheduled for the owner (Reports › Scheduled reports), daily or weekly.

The pictures in this guide come from a demonstration restaurant drawn for it ("FreshBite" is not a real brand), shown on the iEdgeGW web interface. The board's numbers in them are from simulated traffic.