LAUNDRIX

LAUNDRIX USER INSTRUCTION MANUAL

American English Edition

Version 1.01 | 11.03.2026

OVERVIEW

Laundrix is organized into tabs. Each tab has a specific purpose. The normal workflow is simple:

1. Register workers in Workers.
2. Connect a camera in Camera.
3. Monitor recognition and activity in Live.
4. Use Remote if you need to view the system from another device on the same network.
5. Use Garment Engine to build and improve garment classes.
6. Review performance in Statistics.
7. Visualize trends in Analytics.
8. Schedule automatic emails in Email.
9. Use AI Center only to verify module status.
10. Use Settings to fine-tune detection, reports, and scale-to-workstation mapping.

Do not try to configure everything at once. Set up workers, camera, and basic operation first. Then move on to reports, analytics, and weight integration.

1. WORKERS

Purpose:
The Workers tab is the personnel registry. Use it to create, edit, search, and manage worker profiles, and to associate face photos with each worker.

What you can do here:

- Search workers
- Create and update worker records
- Add face photos from files
- Capture a face photo from the camera
- Delete a worker
- Wipe all worker and face-related data

Main areas:

- Worker list on the left
- Worker details on the right
- Photo area at the top of the profile

Important rule:

Short Name is required before saving a worker. If you leave it empty, the worker should not be considered properly registered.

How to create a worker:

1. Open the Workers tab.
2. Create or select a worker entry.
3. Fill in at least the Short Name.
4. Add any other available details:
   - Full Name
   - Nickname
   - Date of Birth
   - Nationality
   - Marital Status
   - Education
   - Address
   - Email
   - Phone
   - Emergency Contact

- ID Number
- Tax / NIF
- Notes

5. Click Save Worker.

How to add face photos:

Option A: Add Photo File

1. Select the worker.
2. Click Add Photo File.
3. Choose one or more clear face images.
4. Confirm the import.

Option B: Capture from Camera

1. Make sure a camera is already connected.
2. Select the worker.
3. Click Capture from Camera.
4. Position the subject clearly in front of the camera.
5. Capture the image.
6. Save the worker if needed.

Good practice for worker photos:

- Use clear frontal images.
- Avoid dark lighting.
- Avoid sunglasses, strong shadows, or covered faces.
- Use more than one good photo when possible.

Search:

Use the search box to find workers by Short Name or Full Name.

Delete a worker:

1. Select the worker.

2. Click Delete Worker.

3. Confirm only if you are sure.

Danger action:

Wipe ALL Data permanently removes all workers, face data, and related credentials. This is not a cleanup button. It is a destruction button. Use it only if you really intend to reset the system.

2. CAMERA

Purpose:

The Camera tab is where you connect the live source that Laundrix uses.

Supported connection types:

- USB camera
- Wi-Fi camera
- LAN camera

Important rule:

Select only one source at a time. Do not try to connect USB and Network at the same time.

The tab also lets you assign the connection target to a workstation.

A. USB CAMERA

Use this when the camera is directly connected to the machine.

How to connect a USB camera:

1. Open the Camera tab.
2. In the USB section, scan for available devices if needed.

3. Select the correct USB camera index.
4. Select the target workstation.
5. Click Connect.

If the wrong camera opens:

- Disconnect it
- Change the USB index
- Connect again

USB tips:

- If multiple USB cameras are connected, test them one by one.
- Use stable power and a reliable cable.
- If the image is black or wrong, disconnect and reconnect with the correct index.

B. WI-FI CAMERA

Use this when the camera is connected through the local wireless network.

Typical use cases:

- IP cameras on Wi-Fi
- Mobile camera apps that expose a stream
- Discovered network cameras

How to connect a Wi-Fi camera:

1. Make sure the camera and the Laundrix machine are on the same network.
2. Open the Camera tab.
3. In the Network section, enable the network source.
4. Either:
   - select a discovered camera from the list, or
   - paste the camera stream address manually
5. Select the target workstation.

6. Click Connect.

If the camera was discovered automatically:

- Select it from the list
- If prompted, enter the required camera password or verification code
- Confirm and connect

If you are entering the address manually:

- Paste the valid stream address
- Confirm that the address is reachable on the local network
- Click Connect

Wi-Fi tips:

- Weak Wi-Fi means unstable video.
- If the stream keeps freezing, fix the network before blaming the software.
- Keep the camera close enough to the access point for a stable signal.

C. LAN CAMERA

Use this when the camera is connected through the wired local network.

How to connect a LAN camera:

1. Make sure the camera is powered on and reachable on the same network.
2. Open the Camera tab.
3. Enable the network source.
4. Select a discovered camera or enter the stream address manually.
5. Select the target workstation.
6. Click Connect.

LAN tips:

- Wired network is usually the most stable option.

- Use it whenever you need reliability over convenience.

D. TARGET WORKSTATION

Before connecting, select the workstation target.

What this means:
The camera feed can be assigned to a specific workstation. Choose the workstation that should use that source.

How to do it:
1. In the Camera tab, find the workstation selector.
2. Choose Workstation 1, 2, 3, or 4.
3. Then connect the selected source.

E. DISCONNECT

To stop the feed:
1. Open the Camera tab.
2. Click Disconnect.

Use Disconnect before changing to another source.

Important note:
A source should not be assigned twice. If a camera is already active elsewhere, stop or reconfigure it first instead of forcing duplicates.

3. LIVE

Purpose:

The Live tab shows the current live video feed from the active camera and displays recognition status.

What you see here:

- Live video
- Camera status
- Last detected face
- Short Name
- Full Name
- Address
- Notes
- Detected Workers list
- View Profile button

What it is for:

- Monitoring the current feed
- Checking whether recognition is working
- Verifying which worker is currently being identified
- Manually focusing on a detected worker when needed

How to use it:

1. Connect a camera in the Camera tab.
2. Open Live.
3. Watch the feed.
4. Review the information panel to see who was last recognized.
5. Use the Detected Workers list if multiple known workers appear.

Detected Workers:

This list shows recognized workers currently detected in the feed.

How to use the list:

1. Click a worker in the list.
2. The system will focus on that worker as the manual target.

View Profile:

If a worker is identified, use View Profile to open the full worker profile.

If Live shows no video:

- Confirm a camera is connected
- Confirm the source is correct
- Confirm the source is not already tied up elsewhere
- Disconnect and reconnect if needed

If recognition is wrong or unstable:

- Improve lighting
- Improve worker photos in Workers
- Check camera position and image quality
- Adjust recognition-related settings later in Settings

4. REMOTE

Purpose:

The Remote tab allows you to open a browser-based dashboard from another device.

Supported remote devices:

- Computer
- Tablet
- Mobile phone

Requirement:

The device must be connected to the same network as the Laundrix machine.

Main controls:

- Enable remote dashboard
- Port
- Password
- URL display
- Open in Browser
- QR code

How to enable Remote:

1. Open the Remote tab.
2. Set the desired port if needed.
3. Enter a password.
4. Save the password.
5. Enable the remote dashboard.

Important:

Do not skip the password. Without it, remote access should not be considered properly secured.

How to open Remote on another device:

1. Make sure the other device is on the same network.
2. Open the Remote tab.
3. Read the displayed URL, or scan the QR code.
4. Open that address in a browser.
5. Enter the saved password.

QR code:

The QR code exists to make access faster. Scan it with the mobile device and open the browser page directly.

Open in Browser:

Use this button to open the remote dashboard locally on the current machine.

When to use Remote:

- Quick checking from a phone
- Supervising from another room
- Viewing the current feed and status without standing at the main machine

If Remote does not open:

- Check that Remote is enabled
- Check that the password was saved
- Check that both devices are on the same network
- Check the port
- Check that the local firewall or network policy is not blocking access

Security advice:

Use a dedicated, non-trivial password. There is no prize for making it easy to guess.

5. GARMENT ENGINE

Purpose:

The Garment Engine tab is used to build and improve garment classification by preparing classes, importing images, training, and managing model versions.

What you can do here:

- View garment classes
- See image counts per class
- Add a new class
- Delete a class
- Add images to a class
- Remove the last imported batch
- Start training

- Cancel training
- Review training messages
- Activate a trained version
- Roll back to a previous version

Main idea:

If you want the system to distinguish new garment categories, this is where you do it.

A. GARMENT CLASSES

A class is a garment category, such as:

- shirt
- t-shirt
- pants
- bedsheet
- towel
- other

You can also add your own categories.

How to add a class:

1. Open Garment Engine.
2. Add a new garment class.
3. Use a simple, clear name.
4. Confirm.

Use sensible class names:

- Keep names short
- Keep names consistent
- Do not create duplicate categories with slightly different spelling

How to delete a class:

1. Select the class.
2. Delete it.
3. Confirm.

Be careful:

Deleting a class also removes the dataset images associated with it.

B. ADDING IMAGES

How to add images to a class:

1. Select the class.
2. Click Add Images.
3. Choose clear images for that class.
4. Confirm.

What makes a good dataset:

- Correct class labeling
- Clear visibility of the garment
- Variety of angles
- Variety of folds and placements
- Consistent image quality

What ruins a dataset:

- Wrong labels
- Too few images
- Mixed garment types inside the same class
- Blurry garbage passed off as training material

Remove Last Images:

Use this if your most recent import was wrong and you want to undo that batch quickly.

C. TRAINING

Before training, make sure:

- At least two classes contain images
- Each class used for training has enough images
- The labels are correct

Minimum practical rule:

Do not train with tiny datasets and expect miracles. If a class has too few images, training should be postponed until you add more.

How to start training:

1. Confirm your classes and image counts.
2. Click Start Training.
3. Watch the training log.
4. Wait for completion.
5. Review the result.

How to cancel training:

Click Cancel Training if needed.

D. MODEL VERSIONS

After training, versions can be managed.

Activate Selected Version:

Use this to switch to a chosen trained version.

Roll Back to Previous:

Use this if the latest version performs worse and you need to go back.

Best practice:

Do not replace a working version blindly. Test changes first. Newer is not automatically better.

6. STATISTICS

Purpose:

The Statistics tab provides operational summaries and breakdowns for runs recorded by the system.

What you can do here:

- Filter results by date
- Filter by worker
- Filter by garment
- Filter by workstation
- Review KPIs
- Inspect breakdown tables
- Review time-based summaries
- Export a report

Main filters:

- Date From
- Date To
- Worker
- Garment
- Workstation
- Apply Filters

How to use filters:

1. Select the date range.
2. Optionally narrow the data by worker, garment, or workstation.
3. Click Apply Filters.

What the KPI area can show:

- Total Runs
- Average Time
- Median Time
- Best Worker
- Worst Worker
- Classified
- Unclassified
- Active Days
- Average Runs per Day
- Top Hours

What the breakdown tabs show:

- By Worker
- By Garment
- By Workstation
- Daily / Weekly / Monthly / Yearly summaries

How to read the tables:

By Worker:

Use this to compare workers by total runs and timing performance.

By Garment:

Use this to see which garment types are most common and how long they take on average.

By Workstation:

Use this to compare workstation load and performance.

Daily / Weekly / Monthly / Yearly:

Use this to understand production patterns over time.

How to get useful answers from Statistics:

- Use a short date range for current operational checks
- Use a longer date range for trend review
- Filter by workstation if you suspect a station problem
- Filter by worker if you want a worker-specific breakdown
- Filter by garment if one category appears slower or noisier

Export Report:

Use Export Report to generate a formal report from the current filters.

What the report can include:

- Model status summary
- KPI summary
- Worker breakdown
- Garment breakdown
- Workstation breakdown
- Top completion hours
- Day-of-week overview
- Recent runs
- Charts

In normal operation, the report is intended as a DOCX report.

7. ANALYTICS

Purpose:

The Analytics tab turns statistical data into visual charts.

What you can do here:

- Apply the same type of filters used in Statistics
- Choose a chart
- Review chart details in table form
- Explore visual trends

Main filters:

- Date From
- Date To
- Worker
- Garment
- Workstation
- Apply Filters

Available chart types:

- Time Trend
- By Worker
- By Garment
- By Workstation
- By Weekday
- By Hour
- Classified vs Unclassified
- Heatmap
- Model Version Distribution

How to use Analytics:

1. Open Analytics.
2. Set the desired filters.

3. Click Apply Filters.

4. Choose the chart type.

5. Review the chart and the details table below it.

How to interpret the charts:

Time Trend:

Shows how activity and timing evolve across time.

By Worker:

Useful for comparing average duration between workers.

By Garment:

Useful for comparing average duration between garment types.

By Workstation:

Useful for spotting slow or overloaded stations.

By Weekday:

Useful for finding busier weekdays.

By Hour:

Useful for finding busier hours.

Classified vs Unclassified:

Useful for checking how much data is being categorized properly.

Heatmap:

Useful for seeing worker-versus-garment distribution.

Model Version Distribution:

Useful when reviewing results across different active model versions.

Best use case:

Use Statistics for exact numbers and Analytics for visual patterns. One is the ledger. The other is the picture.

8. EMAIL

Purpose:

The Email tab is used to schedule automatic emails, including the option to attach the latest report.

What you can configure:

- Gmail Address
- App Password
- Sender Name
- Recipients
- Subject
- Message
- Send Date
- Send Time
- Recurrence
- Enabled
- Attach latest report

Available recurrence options:

- One-time
- Daily
- Weekly
- Monthly

Recommended setup:

Use a dedicated Gmail account created only for this purpose. That is the sane approach.

How to create an email schedule:

1. Open the Email tab.
2. Enter the Gmail address.
3. Enter the Gmail app password.
4. Enter the sender name.
5. Enter the recipients.
6. Write the subject.
7. Write the message body.
8. Select the send date and time.
9. Choose the recurrence.
10. Enable the schedule if you want it active immediately.
11. Enable Attach latest report if you want the latest generated report included.
12. Click Save Schedule.

What appears below:

The Scheduled Emails table should show saved schedules, including:

- ID
- Next Send
- Recipients
- Enabled
- Recurrence

Important notes:

- Gmail address and recipients are required.
- For Gmail, use an app password rather than your normal account password when appropriate.
- Use a mailbox dedicated to automation, not your personal primary account.

Using it for statistical reports:

This tab can be used to schedule the delivery of the latest statistical report. In a normal setup, that report is intended to be a DOCX file. To make that workflow useful, generate reports consistently and keep your report storage settings organized.

Best practice:

- Use clear subject lines
- Send to a distribution list if multiple people need the same report
- Test with one recipient before using a wider list
- Keep the schedule enabled only when you actually need it

9. AI CENTER

Purpose:

AI Center is not a daily operations tab. It is a verification tab.

Use it to:

- Check whether the available modules are enabled
- Check whether they are loaded
- Run a status test
- See whether a module is using CPU or CUDA
- Review the most recent test result

What it is not for:

- It is not the place to operate the system day to day
- It is not where you train garments
- It is not where you manage workers
- It is not where you fix bad camera setup

Main actions:

- Run All Tests

- Enable All
- Disable All
- Run Test on individual modules

What each module card can show:

- Module name
- Enabled or Disabled
- Loaded or Not Loaded
- Device
- Test status
- Test output message

How to use AI Center:

1. Open AI Center.
2. Review the module list.
3. Use Run All Tests for a general verification pass.
4. Use Run Test on a specific module if you need to check only one area.
5. Read the device badge to see whether it is using CPU or CUDA.
6. Read the output message for the latest result.

When to use this tab:

- After deployment
- After updates
- After hardware changes
- When troubleshooting module availability

When not to use this tab:

- As a substitute for proper operational testing
- As an excuse to toggle things randomly because the buttons exist

Practical advice:

If the system is working, do not treat AI Center like a toy dashboard. Verify only when needed.

10. SETTINGS

Purpose:

The Settings tab is where you fine-tune system behavior, reports, and weight integration.

What can be adjusted here:

- Detection levels
- Recognition-related thresholds
- Face processing limits
- Overlay behavior
- Report storage
- Retention periods
- Weight service settings
- Workstation-to-scale mapping
- Developer-only simulator bridge settings

A. DETECTION AND RECOGNITION TUNING

Use Settings when you need to adjust sensitivity and behavior.

Examples of configurable behavior:

- Detector threshold
- Maximum faces per frame
- Recognition threshold
- Prioritization behavior
- Overlay debug display
- Garment-engine weighting and related tuning

When to adjust these:

- Too many false detections
- Missed detections
- Recognition instability
- Too much clutter in the visual overlay
- Garment classification behaving poorly in real conditions

Rule:

Do not change multiple thresholds at once unless you enjoy not knowing which change caused the problem.

B. REPORTS AND STORAGE

Use this section to control where reports are saved and how long data is kept.

Typical options:

- Reports folder
- Auto-generate report on export
- Keep run logs for a number of days
- Keep report files for a number of days

How to use it:

1. Open Settings.
2. Go to the reports/storage area.
3. Select the report folder.
4. Set retention values.
5. Save the settings.

Use this if:

- You want reports in a specific business folder

- You want a longer or shorter retention period
- You want cleaner report handling

C. WEIGHT INTEGRATION AND WORKSTATIONS

Use this section to connect the correct scale channels to the correct workstations.

What can be set:

- Global weight service enable/disable
- Weight backend
- Per-workstation channel enable
- Workstation mode
- Basket channel settings
- Hanger channel settings
- Tare values
- Scale values
- Trigger levels
- Stability timing
- Noise handling
- Runtime diagnostics

What this is for:

If your operation uses basket and hanger weight transitions, this is where the system is matched to the physical setup.

How to map scales to workstations:

1. Open Settings.
2. Find the weight settings section.
3. Enable weight channels for the workstation that should use them.
4. Enter the correct basket and hanger identifiers.
5. Enter the correct channel numbers.

6. Set tare and scale values.
7. Adjust trigger and stability values as required.
8. Save the settings.
9. Reload the weight service if necessary.

If the wrong workstation reacts to the wrong scale:

You mapped it wrong. Fix the assignment instead of pretending the hardware is haunted.

Live weight diagnostics:

Use the status and diagnostics area to confirm:

- Whether the service is available
- How many channels are configured
- How many are online
- Whether basket and hanger readings are active

D. SIMULATOR BRIDGE

This is developer-only.

Purpose:

It simulates weight behavior for testing.

Who should use it:

- Developer
- Integrator during controlled setup
- Nobody else

Who should not use it:

- Normal operators
- Supervisors doing regular production work
- Anyone expecting real scale input from a fake bridge

Important warning:

The Simulator Bridge depends on an additional integrated program. If that external simulation side is not present, this mode is pointless.

Normal production recommendation:

Use the real backend, not the simulator.

E. SAVE SETTINGS

After changing values:

1. Review the configuration carefully.
2. Save the settings.
3. Reload services only if required.

Good practice:

Document the working configuration before making major changes. That way, when somebody breaks it, there is at least a way back.

RECOMMENDED DAILY WORKFLOW

1. Open Workers and confirm worker records are correct.
2. Open Camera and connect the correct source.
3. Open Live and verify the feed and recognition.
4. Run production.
5. Review Statistics at the end of the shift or reporting period.
6. Use Analytics for trends and comparisons.
7. Export a report when needed.

8. Use Email if reports must be sent automatically.

9. Use AI Center only for status verification.

10. Use Settings only when a change is actually required.

TROUBLESHOOTING QUICK GUIDE

No live video:

- Check camera connection
- Check the selected source
- Disconnect and reconnect
- Confirm the source is not already assigned elsewhere

Wrong worker identified:

- Improve worker photos
- Improve lighting
- Recheck thresholds in Settings
- Confirm the correct person was registered

Remote page does not open:

- Confirm Remote is enabled
- Confirm password is saved
- Confirm same-network access
- Confirm the correct port is being used

Garment training will not start:

- Make sure at least two classes have images
- Add more images to weak classes
- Check that classes are correctly labeled

No useful statistics:

- Check the selected date range

- Check that runs actually exist
- Remove over-restrictive filters

Email schedule not useful:

- Confirm Gmail address
- Confirm recipients
- Confirm time and recurrence
- Confirm report generation is part of your workflow

AI Center shows CPU instead of CUDA:

- Treat that as a status result, not a philosophical crisis
- Verify the machine configuration separately if needed

FINAL OPERATING ADVICE

Keep the setup simple.

Use clear worker photos.

Use stable camera sources.

Use sensible garment classes.

Do not over-tune thresholds without evidence.

Use dedicated credentials for automated email.

Treat the developer-only simulator as developer-only.

And above all, do not confuse “available in the interface” with “should be changed every day.”