

### **Ava Automation Guide**

Nov 25, 2025

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### Introduction

The Ava Robots, including the Ava Telepresence Robot, support a wide range of automated capabilities. These capabilities fall into two categories: Monitoring and Reception. More details on each are provided in the following sections.

Please contact support@avarobotics.com with any feedback or questions.

### Monitoring

Ava's monitoring features offer several complementary operational modes that allow you to monitor a site, whether you are interested in facility management, operational efficiency or security.

Each operating mode offers separate configuration, information collection (such as images, sound measurements and Wi-Fi data) and reporting (including off-line "visual tour", csv files and email notifications). In all modes, records are made available of the robot's movement and data collected.

The available operating modes for monitoring a site are:

- Inspections: Ava moves autonomously through your space, pausing once at each configured location to take measurements and capture images (if enabled). Inspections can be performed on a schedule that you control (say, 4 a.m. each day) or started ad hoc from the Ava Automation Hub.
- Passive Monitoring: Ava takes measurements once a minute while idle and docked at its charging station and whenever it reaches a destination during a telepresence session.
- Security Patrols: Ava moves autonomously through your space for a configured amount
  of time, stopping at preconfigured locations in a sequential order. At each location, it
  can perform a configured rotation and/or pause before moving to a new location. This
  is typically used in combination with a live telepresence session allowing a remote
  agent to patrol the site as if they were performing security rounds.

#### Reception

In Reception mode, Ava (model AVA-04 only, not AVA-01/Telepresence Robot) moves to the reception location, and presents to local guests a menu of choices such as directory or a video call to a remote receptionist.

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When a guest selects a location from the list, Ava ushers them to the location, then returns to the reception location.

#### Summary of Operating Modes and Robots

The following table summarizes the automation modes available for each Ava robot type, and what data is collected.

Operating Mode	AVA-01 (aka Telepresence Robot)	AVA-04 (aka "Granada")			
Inspections	Robot position and time Sound Environment Wi-Fi Visual Checks	No			
Passive Monitoring	Robot position and time Sound Environment Wi-Fi Visual Checks (except when in telepresence session)	No			
Security Patrol	Robot position and time	No			
Reception	No	Yes (beta)			

#### References

The following documents are related to this document:

- Ava Administrator's Guide: Information relevant to the initial implementation of an Ava, and also to its ongoing operation.
- Ava Installation and Configuration Guide: Instructions on overall system configuration (including remote application information, managing users, etc.)
- Ava Caretaker Poster: Can be provided to local Caretakers as orientation on the Ava's features.

All documents can be found at <a href="https://www.avarobotics.com/documents">www.avarobotics.com/documents</a>.

### **Data Collected**

This section describes the data collected by Ava's automation feature. It also highlights when

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information is collected in some modes of operation and not others.

#### **Robot Position and Time**

During any of the Monitoring operating modes, Ava will capture the name of locations visited and relevant time stamps (such as arrival or departure). The name of a location comes from Ava's configured "map" and time is represented in the robot's configured time zone.

### Wi-Fi Signal Strength

During monitoring, the Ava will measure the signal strength (in dBm) for the SSID to which it is enrolled at each location visited.

Two values are captured: "Strength scanned" reports the strongest signal strength observed for any 5 GHz AP broadcasting the SSID, and "Connected strength" reports the signal strength for the Access Point (AP) to which the Ava is connected at the moment of data capture. These APs may not be the same at any point in time, depending on roaming policies in effect on the Ava.

Note: "Strength connected" is currently known to report incorrect values under many network conditions and is presented mainly to report which AP the robot is connected to and a possible indication of relative signal strength at different locations.

#### Sound Environment

This feature is supported only on Avas using the Cisco RoomKit Codec Plus. The Ava will capture two values at each visited location, Ambient Noise and Sound Level.

#### Notes:

- This feature is not intended to assess the safety of Ava's environment, but rather to measure overall sound for comfort in office spaces and similar environments, and presence of sound at different locations of inspection.
- The source of the data is the Cisco codec present inside of Ava. Per Cisco codec documentation: "The value is only a relative value and should not be treated as an absolute SPL (Sound Pressure Level) value. (...)"

There are a few use cases where this inspection could be useful:

- Regular checks of the ambient noise throughout your facility to assure that there are no noises that make the space uncomfortable for your team members or guests.
  - o To check on this, look at the inspection reports for ambient noise at each of the

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inspection locations over a few days.

- Automated confirmation that a device is producing sound as expected (e.g. an AV display with sound at a Customer Welcome Center)
  - To check this, Ava Robotics will help you set up one or more inspection locations at such stations.
  - Run scheduled inspection at a time when the space is generally quiet and you
    expect the audio to be playing (e.g. one hour before doors open for guests).
  - In the Ava Automation Hub, download the inspection report and open it in (or import it into) any spreadsheet application.
  - For each row that applies to an AV station, look at the values in the columns for Ambient Noise and Sound Level:
    - If the sound level is at least 4 dB(A) higher than the ambient noise, the AV station is probably playing audio.
    - If the sound level is less than 4 dB(A) higher than the ambient noise, the AV station is probably not playing audio.
  - Note that the system more reliably detects voices than music. If you are interested in this use case, Ava Robotics will help you run some test inspections to verify it's working as desired.

#### Visual Checks

This feature takes an image from the Ava's main camera at each location. for subsequent review by a user. The feature is turned off by default.

Images are captured at a resolution of 1920×1080 pixels, with the Ava's main camera facing in its home position.

Images can be viewed as part of a Visual Tour for Inspections, accessible from the Reporting page in the Automation Hub. Images captured are also used for certain checks - see more in the Inspections section of this document.

There are a few use cases where this could be useful:

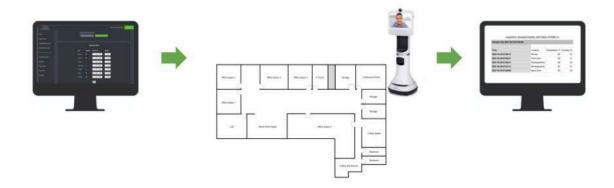
- Autonomously scan your facility ahead of time to make sure it's ready for an upcoming event such as a VIP visit.
- Create a visual record of your facility so you can remotely inspect compliance with safety norms such as egress paths unobstructed.
- Observe changes to your facility over time, perhaps before and after a contractor does work on it.

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# Inspections

The general workflow of an inspection is as follows:

- 1. An inspection starts on a set schedule or ad hoc by a user.
- 2. Ava performs the inspection of the configured locations.
- 3. After inspection is completed, a notification email is sent to configured email addresses, and reports become available in the Automation Hub.



### Scheduling and Starting Inspections

Inspections for each site can be scheduled in the Automation Hub. Inspections also can be started ad hoc in the Hub.

Please note: having a teleport session and an inspection running at the same time could interfere with each other. Ava Robotics recommends avoiding this.

#### Visual Checks for Display and Door Status

When storing of images is allowed (disabled by default), inspections include an experimental feature that detects status of displays and doors at your facility:

- Display Detection: whether a display is present at a specified location and whether it's
  off or on.
- Door Detection: detects whether a door is present at a specified location and whether it's open or closed. Note: This feature is still under development and may report incorrect status for doors that are ajar. Please contact support@avarobotics.com with any feedback or questions.

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You can specify which locations you want to check in the Inspection Configuration page of the Automation Hub.

This feature uses Al analysis provided by Google Gemini. Gemini retains the images for no more than 48 hours and no Google personnel view the images.

#### Inspection Report

You can select and download a report for a specific inspection. You can also download a cumulative inspection report, which includes all locations visited and data collected for a date range you specify. Enter the start and end dates in the format YYYY-MM-DD.

The inspection report is CSV-formatted and can be opened in Excel or other applications. It will have one row for each inspection location visited. If any given location was not reached, the column "Successful arrival" will indicate so with the value "no". Columns on the sheet report the values or conditions inspected. Any blank cells indicate that the robot used is not capable of such inspection. See below for a sample report.

											Ambient	Sound
		Successf	Image	Display	Door			Strength		Strength	Noise	Level
Time	Location	ul Arrival	Captured	Status	Status	SSID	BSSID Connected	Connected	BSSID Scanned	Scanned	dB(A)	dB(A)
11/14/2025 6:30	Charging Station	yes	yes			Ava8Net	f6:e2:c6:97:fa:8a	-49	f6:e2:c6:97:fa:8a	-48	41	41
11/14/2025 6:31	FrontDoor	yes	yes		closed	Ava8Net	f6:e2:c6:97:fa:8a	-50	f6:e2:c6:97:fa:8a	-49	40	40
11/14/2025 6:33	ViewLargeDisplay	yes	yes	on		Ava8Net	f6:e2:c6:97:fa:8a	-54	f6:e2:c6:97:fa:8a	-51	40	40
11/14/2025 6:36	BackDoor	no	no									
11/14/2025 6:37	Storage	yes	yes			Ava8Net	f6:e2:c6:97:d9:6a	-43	f6:e2:c6:97:d9:6a	-38	42	43

The inspection report includes the column Display Status; for each location, it shows.

- <blank>: Display Detection is disabled or robot did not capture an image
- no display: A display was not detected in the robot's field of view
- off: Display was detected at the location and is believed to be off/black
- on: Display was detected at the location and is believed to be on

The inspection report includes the column Door Status; for each location, it shows.

- <blank>: Door Detection is disabled or robot did not capture an image
- no door: A door was not detected in the robot's field of view
- open: A door was detected at the location and is believed to be open
- closed: A door was detected at the location and is believed to be closed

You can view the images collected in an inspection round by clicking View Visual Tour (details below).

Sound measurement is supported only on Avas using the Cisco RoomKit Codec Plus. When another codec is present, the inspection report will have empty cells in its report for these

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data points.

The report shows whether an image was captured at a location. Two reasons why an image would not be captured are: the feature has not been configured for this site or the feature is configured but the robot was not able to reach that location.

#### **Inspection Email Notifications**

Following an inspection, an email is sent to users configured for Notifications. This email will note whether Ava was able to reach all destinations.

The email notification will also include a warning if Wi-Fi Scanned Strength is at or below a threshold configured in the Automation Hub. Each location where Scanned Strength was at or below the threshold will be listed in the email.

An appendix to this document lists examples of many email notifications under different conditions.

# **Passive Monitoring**

In Passive Monitoring, Ava captures data once a minute while idle and docked at its charging station. It also captures data when it reaches a destination during a telepresence session. A CSV file with monitoring data can be downloaded from the Hub.

#### Notes:

- When robot on charging station and idle, images are captured:
  - However they are not currently available for download via the Hub
  - o Display and Door Detection are not performed
- When in telepresence session, images are not captured

#### **Monitoring Report**

You can download a monitoring report for a date range you specify. Enter the start and end dates in the format YYYY-MM-DD. It has the same general formatting as an inspection report. Since monitoring does not perform checks for display or door status, these fields will be blank.

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Currently, data collected during telepresence sessions is reported as individual Inspection Reports. It is planned that this will move to the Monitoring Report in the future.

# **Security Patrols**

The general workflow of a security patrol is as follows:

- 1. A patrol starts on a set schedule or ad hoc by a user. A user in a telepresence session can also start a patrol.
- 2. Ava patrols the configured locations for a specified time period.
- 3. After the patrol is completed, a notification email is sent to configured email addresses, and a report becomes available in the Automation Hub.



#### Scheduling and Starting Security Patrols

Security Patrols for each site can be scheduled in the Automation Hub. Security Patrols also can be started ad hoc in the Hub or in an Ava Teleport App. Scheduled patrols shifts have a duration specified by you. Ad hoc patrols have a set duration of 2 hours.

#### Security Patrol Report

You can select and download a report for a specific security patrol. The report is CSV-formatted and can be opened in Excel or other applications. It will have one row for each location attempted to visit, where it arrived successfully and arrival and departure time.

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Location	Successful arri	Arrival time	Departure time
Front_Door	yes	11/14/2025 5:11	11/14/2025 5:11
Back_Door	yes	11/14/2025 5:12	11/14/2025 5:13
FrontDoor	no		11/14/2025 5:14
ViewLargeDisplay	yes	11/14/2025 5:15	11/14/2025 5:15

#### Security Patrol Email Notifications

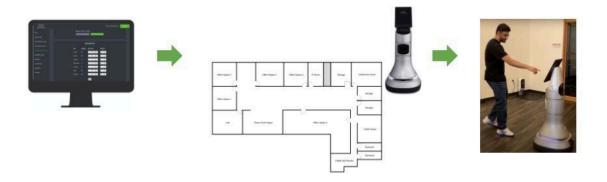
Following a patrol, an email is sent to users configured for Notifications. This email will note whether Ava was able to reach all destinations.

An appendix to this document lists examples of email notifications sent under various conditions.

# Reception

Ava moves to the configured reception location, and presents to local guests a menu of choices such as directory and video call to remote receptionist.

When a guest selects a location from the list, Ava ushers them to the location, then returns to the reception location.



### Scheduling and Starting Receptions

Receptions for each site can be scheduled in the Automation Hub. Receptions also can be started ad hoc in the Hub.

Scheduled Reception shifts have a duration specified by you. Ad hoc receptions have a set duration of 2 hours.

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#### **Ava Automation Hub**

The Hub is a web portal that allows you to manage your automation features (such as scheduling and optional configurations) and collect information (such as reports and status) about them.

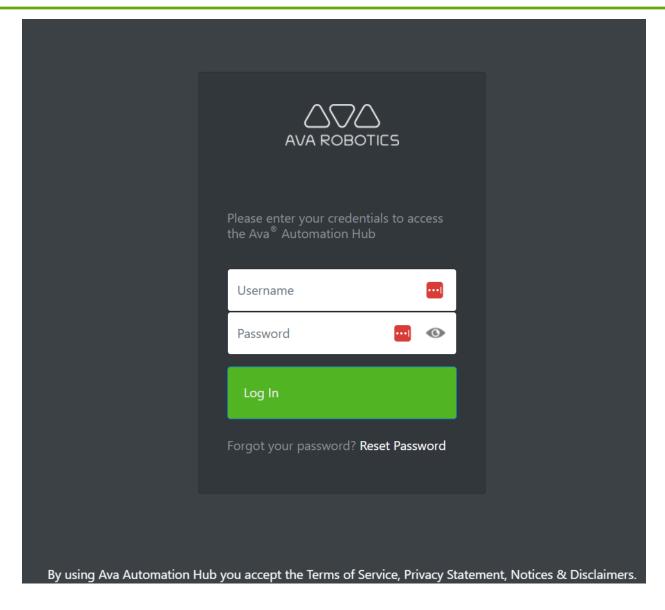
Your company will have a tenancy on the system, and your account to the Hub gives you access to each Ava that is configured in this system.

#### Logging In

An Ava representative will create an account for you, and you will receive an email with details. At this time, these credentials will NOT be the same as your Ava Teleport app credentials.

The Hub can then be accessed via a web browser at <a href="https://auto.ava8.net/">https://auto.ava8.net/</a>. More than one account can be created to access your Avas. If your organization needs additional accounts, contact your Ava representative.

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#### Home Page

The home page will show a summary status of your robot(s), listed by the site names configured in the system. (The illustration shows Ava Robotics's own robots.)

The menu bar on the left shows several functions of the robot.

- System Config
- Inspection Config is where inspection rounds are configured and executed.
- Security Patrol Config is where security patrols mode is scheduled and executed.
- Receptionist Config: In the Receptionist Config page, you can start a reception mode at any of your sites.
- Reporting is where you will find the reports for download.

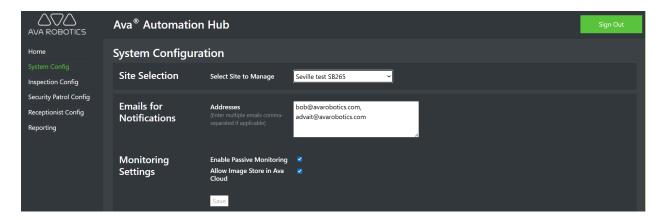
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#### System Config Page

The System Config page allows for configuration of the email address(es) to which notifications are sent. Notifications are described earlier in this document. This page also allows you to configure whether to enable passive monitoring or allow storing images in the Ava cloud.

If you have more than one site with an Ava robot under your supervision, a drop down will be presented to allow you to select the site.



#### **Inspection Config Page**

In the Site Inspection Config page, you can start inspection rounds at any of your sites.

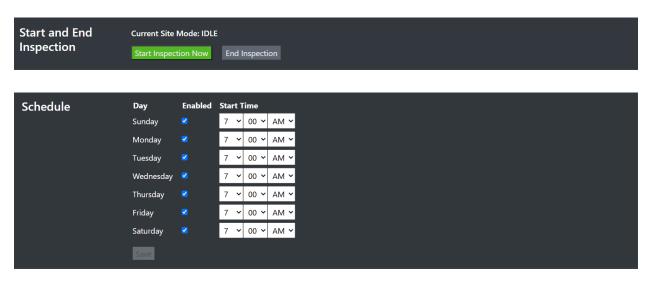
Use the drop down to select your desired site (if you have more than one).

To start or end an inspection, click on the appropriate button.

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You can set an automated daily schedule for inspections, based on the day of week. At each configured time, the Ava will automatically leave the charging station to complete the round.

Note: Time zone for the site is configured by the Ava Robotics team at time of deployment, typically for the site's time zone.



Under Additional Settings, you can configure whether Ava should also include telepresence destinations, in addition to any locations specifically configured for inspections. If you include telepresence destinations, an inspection will include the destinations defined when the inspection runs; this will change over time if destinations are added or removed. You can also configure the minimum expected Wi-Fi strength. An inspection will generate a warning message if any location's strength is at or below this level. Leaving this field blank disables the warning. You can also specify the locations to check for doors or displays. The UI shows the locations currently selected; you can remove a location by checking on the "x" to the right of the name. To add locations, click in the white box and click on the location you want. You can also type in this field to bring up a list of matching locations. When you are done updating Additional Settings, click Save for the changes to take effect.



#### Security Patrol Config Page

On the Security Config page, you can start security rounds at any of your sites.

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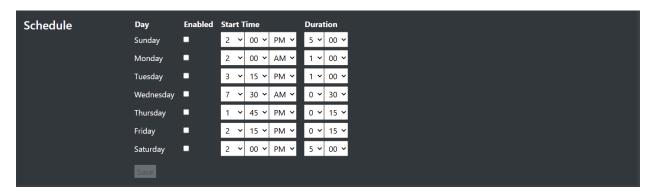
Use the drop down to select your desired site (if you have more than one).

To start or end a round, click on the appropriate button.



You can set an automated daily schedule for security rounds, based on day of week. At each configured time, the Ava will automatically leave the charging station to complete the round.

Note: Time zone for the site is configured by the Ava Robotics team at time of deployment, typically for the site's time zone.



You can configure the behavior of the Ava at each location in the patrol.

Under Action, you can configure the Ava to perform a 360 degree rotation in place.

Under Wait Time you can configure the pause time, in seconds, after the action selection before Ava moves to the next location.



Under 'Additional Settings', you can configure whether Ava should also include inspection locations and telepresence destinations, in addition to any locations specifically configured for security rounds. If you include inspection locations or telepresence destinations, a patrol will include the ones defined when the patrol runs; this will change over time if locations/destinations are added or removed. You can also configure whether to allow teleport apps to start/end a patrol.



#### Receptionist Config Page

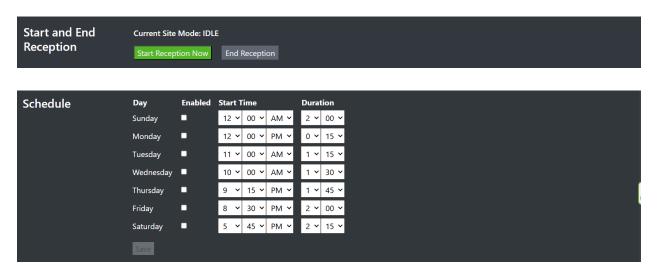
In the Receptionist Config page, you can start a reception mode at any of your sites.

Use the drop down to select your desired site(if you have more than one).

To start an immediate reception shift, click on the button labeled Start Reception Mode.

You can set an automated daily schedule for reception, based on day of week. At each configured time, the Ava will automatically leave the charging station to complete the round.

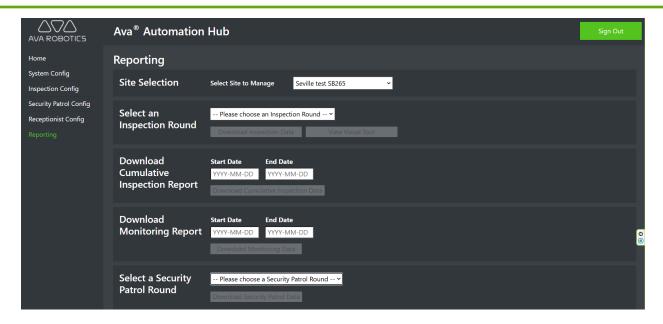
Note: Time zone for the site is configured by the Ava Robotics team at time of deployment, typically for the site's time zone.



#### Reporting Page

In the Reporting page, you will find Inspection, Monitoring, and Security Reports. Reports are available for the last 30 days of operation.

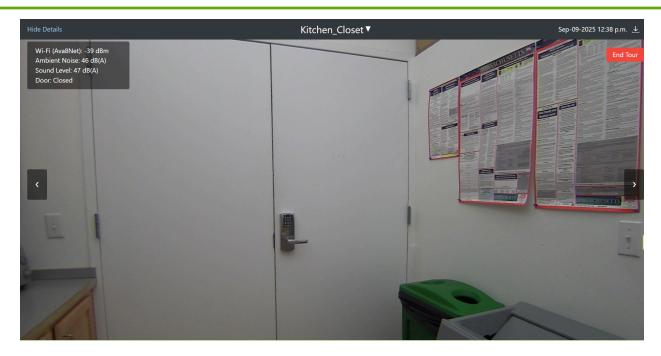
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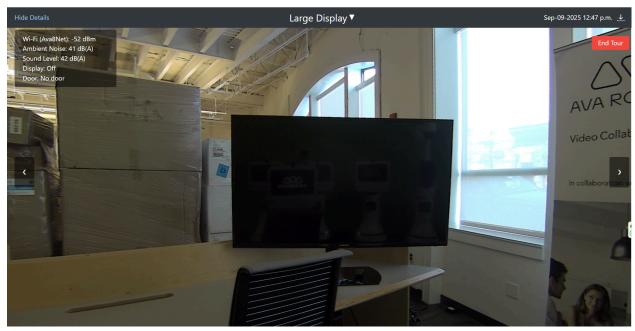


#### Viewing a Visual Tour

When you select *View Visual Tour*, you will be presented with a window displaying the first image captured in the inspection. The top of the window gives the location where the image was taken and the date/time when it was taken. The top left corner includes data collected at that location: Wi-Fi Scanned Strength, Ambient Noise, Sound Level, and Display and Door Status (if configured). You can hide this info by clicking Hide Details and turn them back on by clicking Inspection Details. The arrow at the middle right of the window goes to the next image in the tour. The arrow at the middle left of the window goes to the previous image. You can also navigate to any location by selecting it from a list that is opened by clicking on the location name. Clicking the download button in the top right downloads the image, annotated with the site name, location name, and date and time of the inspection. If an image was not collected at a location, the tour will display a black screen with the message "No image available." At any point, you can return to the reporting screen by clicking End Tour.

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## **Email Notifications**

This section contains examples of notification emails under various conditions.

### Successful Inspection Completion

Inspections will generate a message when an inspection competes successfully:

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Greetings,

Ava completed the inspection round at Ava HQ - Demo Robot. To see a report of what data was collected, log into Ava Automation Hub.

Have a great day!

The Ava Team

avarobotics.com/customer-support

#### Warning (Incomplete Inspection)

Inspections will generate an alert message when they fail to complete successfully if Wi-Fi strength is at or below a user-specified minimum. The email will have the subject line "Ava update, please read, <siteName>, <endTime>" and the body will include:

Greetings,

Ava did not complete the inspection round at Ava HQ - Demo Robot. The inspection was either intentionally aborted, or Ava was unable to reach all the inspection locations. To see a report of what data was collected, log into Ava Automation Hub.

Have a great day!

The Ava Team

avarobotics.com/customer-support

#### Warning (Wi-Fi Strength)

Inspections will generate an alert message if Wi-Fi strength is at or below a user-specified minimum. The email will have the subject line "Ava update, please read, <siteName>, <endTime>" and the body of the message will include a line for each location that was below the threshold:

Greetings,

Ava did not complete the inspection round at <siteName>. The inspection was either intentionally aborted, or Ava was unable to reach all the inspection locations.

- Warning Wi-Fi of -69 dBm at <location> was in warning range
- Warning Wi-Fi of -67 dBm at <location> was in warning range

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To see details on warnings, log into Ava Automation Hub.

Have a great day!

The Ava Team avarobotics.com/customer-support

#### Successful Patrol Completion

Greetings,

Ava completed the security patrol at Second Floor. Start time: November 18, 2025 at 05:00, end time: 05:10. To get a patrol report, log into Ava Automation Hub.

Have a great day!

The Ava Team avarobotics.com/customer-support

#### Warning (Incomplete Patrol)

Inspections will generate an alert message when they fail to complete successfully if Wi-Fi strength is at or below a user-specified minimum. The email will have the subject line "Ava patrol update, please read, <siteName>, <endTime>" and the body will include:

Greetings,

Ava did not complete the security patrol at Ava HQ - Demo Robot.

Start time: November 14, 2025 at 05:00, end time: 05:25.

The patrol was either intentionally aborted, or Ava was unable to reach all the patrol locations. To get a patrol report, log into Ava Automation Hub.

Have a great day!

The Ava Team avarobotics.com/customer-support

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