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1. Introduction

Thank you for selecting Larry to help you in your daily life. With the advanced technology of Larry, you will enhance safety of your loved one, and you will stay connected even if you are far away.

Following this guide will help you to install the sensors in the house and setup our App, so you will have Larry up and running in no time.

Disclaimers

- Larry can not send you alarms unless you have the App installed on your smartphone and your smartphone is permanently connected to the internet, or when your smartphone is set to silent mode.
- Unless you place a sensor in every room of the house, Larry may not provide correct alarms, or may generate false alarms
- Larry may not detect all emergencies. It should not be used as a replacement for a medical emergency call button.
- The Larry sensor kit might not function properly if it is not installed in accordance with the instructions.
- The presence of pets, additional people at home or extremely tall obstacles in front of the sensors may prevent correct anomaly detection or may trigger a false alarm.
- Larry is only intended for people living alone. With multiple persons in the same house, Larry's function will be affected as such that the statistics on the monitored person will get distorted.
- Anomaly detection, especially fall down detection will only work with a single person inside the house. Once additional persons leave the house again, Larry will return

to correct function.

What About Privacy?

Larry is developed to monitor a person remotely. Therein, our design keeps the intrusion into a person's personal life at a minimum. Protecting your privacy is our highest priority. For this reason we used very simple sensor technology in our approach. Larry's hardware doesn't have the means to see you or hear you, simply because we do not have the hardware to record audio or video information. It is only for this reason that allow you to freely install Larry's sensors even in high privacy areas, such as the bathroom or the bedroom.

Besides sensor technology, we are making use of the highest standards of encryption in all our communication. Larry works entirely from the gateway itself, which is installed within your house. The internet connection is necessary to provide you with remote access. Here, we used state-of-the-art encryption technology to protect the data exchange between the gateway, our servers and your smartphone. Furthermore, any data transmitted is rendered anonymous and can not be a associated with your person.

2. Before You Start...

The installation of the Larry Sensor set and the software configuration should take less than an hour. Prerequisite is that you have all required items present. You will need all of the following:

- Larry base set
- Smartphone with Android or iOS operating system
- Internet connection with available Ethernet port

The Larry gateway communicates with the Larry sensors, which are battery powered. The configuration of your system is done entirely through our app. While physically installing the sensors in your house, you will also need to pair your sensors with your Larry gateway. This process is entirely guided by the app.

The range of the wireless communication of the sensor goes up to 30m (100ft), which is sufficient for most housing situations. However, thick concrete walls may dampen the signal significantly resulting in out-of-range situations. In that case, you might be able to compensate by relocating your Larry gateway to a more central location in your house.

3. Contents of the Box

Please check the contents of your set and make sure every item in the list below was delivered with your Larry kit. Figure 3.1 shows illustrations of the components and table 3.1 gives a complete list.

Note that the motion sensors and the bathroom sensors look similar. It is best to identify the sensors by their label.

Description	Quantity	
Gateway with antenna	1	
Motion Sensor	4	
Bathroom sensor	1	
Door sensor	1	
Seat sensor	1	
Bed sensor	1	
Emergency button	1	
AA-batteries	8	
CR2032 button battery cells	1	
Double-sided adhesive strips	10	
Ethernet cable	1	
Power adapter	1	

Table 3.1: Contents of the Larry base set



Figure 3.1: MeetLarry components

4. Installation of the MeetLarry App

4.1 Download the App

Your first step with installing Larry in your home is to download and install the MeetLarry App on your phone. All interaction with the MeetLarry system is realized through the App. You can download the App in your respective App store. You will find the app using the search query "MeetLarry". Alternatively, you can use one of the QR codes on the bottom of this page to guide you to the respective page in your app store.







4.2 Create a Larry User Account

In order to use the Larry App, you need to create an account using your email address. The user account is for the user of the app and is not to be confused with the person being looked after. Use the following steps to create your Account:

- Open the MeetLarry App and press "sign up". (See figure 4.1.)
- Enter your email and choose a password.

 You are required to use at least 8 characters, at least one lower case letter, at least one capital letter and at least one special character.
- You will receive 6-digit verification code with your email. Enter this code in the verification field.
- Read the terms of use thoroughly and accept to continue.
- Enter your personal details. This information is used to personalize your app experience.
- Congratulations! Your have finished your account creation and can now proceed to install Larry in your house.

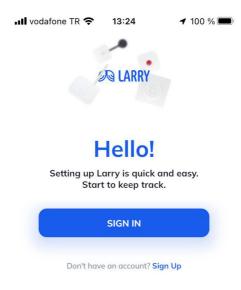


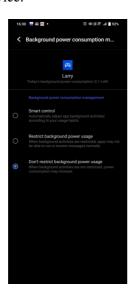
Figure 4.1: Sign-up page

4.3 Notification Permissions

Larry creates push notifications to inform the user about critical events. Please beware that you will not hear any alarms if you switch your phone to silent mode.

Android Devices

With android devices, notification settings are made automatically. However, it is best to check your notification settings. In the system notification settings, make sure you choose the option "Don't restrict background power usage". Then enter the app-specific system settings for MeetLarry and turn on "Normal Importance Notifications" and "High Importance Notifications". The figures below show the settings pages for an example android device.



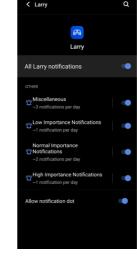


Figure 4.2: System notification preferences

Figure 4.3: App notification preferences

iOS Devices

After sign in, you will be requested to give permissions for the Larry App to send you notifications. As this is crucial for correct functionality, make sure to press "**Allow**".

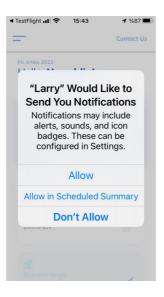


Figure 4.4: Permision request for notifications

5. Installation of the Larry Sensor Kit

General Information

- Check the contents of your package. Make sure it contains all items as described.
- Complete reading the entire manual thoroughly before beginning the installation.
- Each sensor needs to be paired with your gateway and needs to be assigned to a room. The pairing process is part of the installation and is guided step-by-step by the app.

Mandatory Rooms

The minimal configuration of a house requires the following rooms and sensors:

- Bedroom
 - 1x bed sensor
 - 1x motion sensor
- Bathroom
 - 1x bathroom sensor
- Entrance
 - 1x door sensor

About User Types

We distinguish two user types, the guardian angel and the monitored user. During the installation, you will be asked as which type you would like to continue. The guardian angel is a person taking care of the monitored user. The monitored user is the person that lives inside the house, in which Larry is installed. The user type changes the notifications on the smartphone. If you are not living in that specific house, or if you are unsure, then you should choose guardian angel as the user type.





5.1 Install Gateway

After installing the App on your phone and setting up your user account, your next step is to physically install the gateway. The gateway is the largest white box in your set with the label "Gateway" next to its QR code. Figure 5.1 shows the items required for this step.

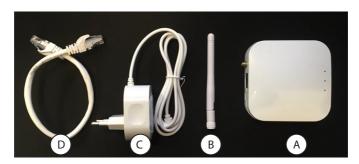


Figure 5.1: Items required for the gateway installation

Complete the following steps:

- 1. screw the antenna (B) into the antenna socket of the gateway (A)
- 2. place the gateway next to your modem or router
- 3. connect your gateway (A) with your modem using the supplied Ethernet cable (D)
- 4. connect the AC adapter (C) cable with your gateway (A)
- 5. plug in your AC adapter (C) with the mains

After connecting the AC adapter with the mains voltage, the orange light should turn on. The blue light should start blink-

ing while connecting to the internet. Once the blue light stops blinking and turns on permanently, the gateway has connected successfully to the internet. The gateway may update its software prior to your installation, which is signalized by synchronously blinking blue and green led lights. Once only the blue and orange led lights stay on permanently, the gateway is ready to continue with the installation.

5.2 Start Configuration

At this point, you should have already followed through the steps described in section 4, and you should have connected your gateway. Now you are ready for the actual configuration process, during which you will pair your sensors with your gateway and place them throughout your house.

To start, take your smartphone and open the MeetLarry app. As you already have created a user account, and as you have already signed in, you will be presented with the following page:



Figure 5.2: MeetLarry app: My places page

This page shows you the overview of the houses you are connected to. You are able to monitor up to ten different homes with our app. Hit the "add place" area as shown in the picture above to start configuration. You will then be asked to scan the

QR code on the bottom of your gateway:



Figure 5.3: Scanning the QR code of the gateway

Scan the QR code, confirm, and follow the steps shown on the app. This will bring you to the room configuration screen, showing you the minimal configuration of a house, comprising of bedroom, bathroom and entrance. You can add rooms to match the layout of your house.

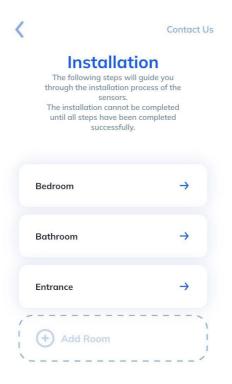


Figure 5.4: Room and sensor configuration page

Sensors are installed in room. To add sensors to a room, you have to select a room from the screen, which will open the sensor installation screen for that room. The predefined mandatory rooms already come with the required sensor types. Additional rooms added later will come empty, and you can add sensors according to your needs.

5.3 Bedroom Setup

The bedroom is one of the three mandatory rooms of the Meet-Larry system. Without these, our system will not work as intended. Following the steps of the previous section, press "bedroom" on your app screen. This opens the following page:

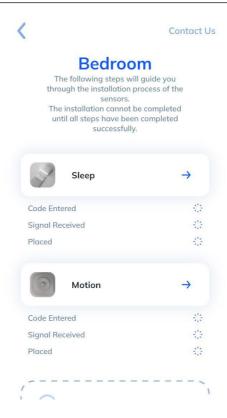


Figure 5.5: Bedroom configuration page

For this step, you will be needing a motion sensor, the sleep sensor, four AA batteries and the supplied velcro stripes for mounting.

Take the sensors to the bedroom, select the first sensor on your app screen and follow the instructions. During this process, you will pair each sensor with your gateway and test their connectivity.

The Larry sensors have a reach of up to 30m. However, thick concrete walls and walls reinforced with steel may dampen the signal and therefore significantly reduce the range.

In the case of a weak connection, the sensor's LED will start flashing rapidly at the end of the pairing procedure. In that case, you can try again moving the sensor closer to the gateway. In large houses, you might have to locate your gateway to a central position to reduce the distance between your gateway and your sensors.

The bed sensor should be placed on the mattress, ideally in the area of the upper body as depicted in figure 5.6. Make sure to find a place for the sensor's box beside the mattress so it doesn't slide down to the floor. The bed sensor has to be close to the person's body. You may use the bed sensor under the bedding sheet. However, if the sheet above the sensor is too thick, the sensor's functionality will be affected.

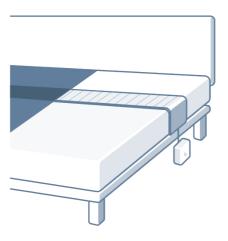


Figure 5.6: Bed sensor placement

The second sensor to be installed in the bedroom is a motion sensor. Be sure to not accidentally take the bathroom sensor, which looks alike, but has a different label. Motion sensors have the label "MOTION" next to their QR code, while the bathroom sensor has the label "BATHROOM". The motion sensors are to be installed on the wall, with 1.5m height from the floor. You can use the self-adhesive velcro stripes contained in the Larry set. Mount the sensor on the wall, press "motion" on your app, and follow the instruction given in the app. Figure 5.7 shows how to mount the sensor in your bedroom. Once you completed the pairing proces of both the motion sensor and the bed sensor,

confirm at the bottom of the bedroom page in your app, which will return you to the main installation screen.



Figure 5.7: Motion sensor in bedroom

Best Practise: Try to not let any motion sensor face in direction of a window or door. The reason for, when a door or window is opened, the motion sensor might pickup motion from outside your area of interest. Examples can be birds flying by or a movement in an adjacent room.

5.4 Bathroom Setup

This is the second of the three mandatory rooms. You will be needing the bathroom sensor of your MeetLarry set, together with two velcro strips and two AA batteries. Take the sensor with the label "bathroom sensor" to the bathroom and mount it 1.5 m above the floor, on the wall. Again, pay attention you don't have it facing towards a window or the door, if possible. Mount the sensor to the wall, enter the bathroom menu in the app, enter the pairing menu. Then scan the sensor's QR code and follow the instructions. Figure 5.8 shows an example installation of the sensor in the bathroom.

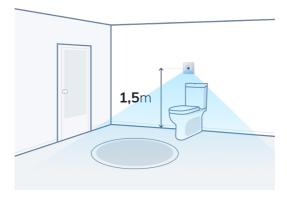


Figure 5.8: Bathroom sensor

5.5 Front Door Setup

The front door sensor is the third and last mandatory room of your MeetLarry system. The sensor is comprised of the sensor main body a smaller part that contains a magnet. Figure 5.9 shows the sensor together with the needed CR2032 battery. Besides these, you will be needing the adhesive tape strips supplied with the set.



Figure 5.9: Door sensor components. (A) CR2032 battery, (B) door sensor magnet and (C) door sensor

In your app, open the installation page and enter the button labeled "Entrance" (see figure 5.4 in section 5.2). Enter the door sensor installation menu, scan the sensor's QR code and proceed with the instruction given in the app. Figure 5.10 below shows the placement of the sensor on your door. Be sure to mount the sensor on the opposite side of the door hinges.

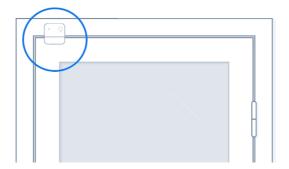


Figure 5.10: Door sensor installation

Depending on the type of door, the sensor can be attached as shown in figure 5.11 or as shown in figure 5.12.





Figure 5.11: Example A

Figure 5.12: Example B

5.6 Additional Rooms

Larry has the following room types:

- bedroom
- kitchen
- living room
- bathroom
- lavatory
- other

The room type "other" is user-configurable. Besides the room label, you can also customize the pictogram used for this room. Other than that, this room type will be behaving the same as a living room.

5.7 Living Room Setup

To configure the living room, press "add room" on the bottom of the main installation menu. Chose the type "living room" and enter a room label of your liking. Press next, and press "add sensor". You will be presented a list of sensors suitable for this type of room. Install a motion sensor the same way you added motion sensors in the previous sections.

After installing the motion sensor, you can add the seat sensor. The instructions are again given in the app. The seat sensor makes a presence detection for the case the monitored person sits on the seat or on the couch. During sitting, the motion sensor might not see the monitored person, which will trigger an anomaly warning. The seat sensor registers the sitting person and prevents a false alarm. The seat sensor should be installed in the seat the person uses the most.

5.8 Kitchen Setup

The kitchen will require at least a single motion sensor. Add a room of type Kitchen. The installation process is analog to the previous sections.

5.9 Separate Lavatory Setup

In the case you have separate bathroom and lavatory, add a room of the type "lavatory" and install a motion sensor.

5.10 Emergency Button Configuration

The emergency button is portable and can be added to any room. Add the emergency sensor to a room of your liking and follow the instructions on your phone. If you wish to do so, you can also mount it to a fixed permanent location using the velcro strips.

5.11 Finalizing Initial Setup

Once you followed through the installion, you can finish the installation with the button on the bottom of the main installation page. If the button is yet greyed out, check the first three manda-

tory rooms (bedroom, bathroom entrance) for missing sensors. In case you don't see the box resembling your house in the my places view, you might want to restart you app.

After finalizing, you can still change the configuration, add or remove sensors, using the device panel in the settings of you house.

5.12 Verify Installation Setup

Once you have installed all system components, you should verify intended functionality. To do so, make sure you are the only person in the house. Take your smartphone, open up the app, go to "my places" and enter your house. Now go to your front door, and open and close the door. Doing so, you should get a push notification, saying that the door was opened and closed.

Now go to each room, and check if you are correctly located with the app. The localization under some circumstances can take up to 10s.

Then go to the bedroom and lay down on the bed to test the bed sensor. Try lying still for 3 minutes, after which your status should change to "sleeping".

Do the same with every seat sensor you have in your house. Sitting down on a seat with sensor, your status should change to "sitting". Getting up, Larry should show you standing again after several sensor readings from the motion sensors.

6. How to use Larry

This section is to provide some more information on the Meet-Larry app.

6.1 My Places

The "My Places" screen is the starting page of MeetLarry. It shows a list of the houses that are linked with your account. Figure 6.1 shows a screenshot with some illustrations. You can have a total of up to ten houses connected to your account. Each house will have a card as in the said figure. Swiping from top to bottom will refresh the displayed data.

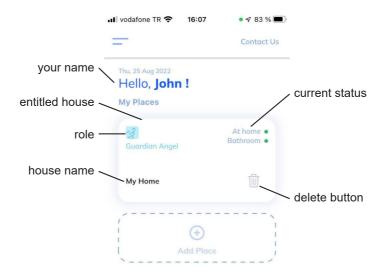


Figure 6.1: The My Places screen.

6.2 My House

Tapping on the house card in "my places", you will enter the house, which will show you more detailed information on the monitored person. The "my house" view has two main tabs, "Status" and "Review". The contents of the "Status" tab is shown in figure 6.2.

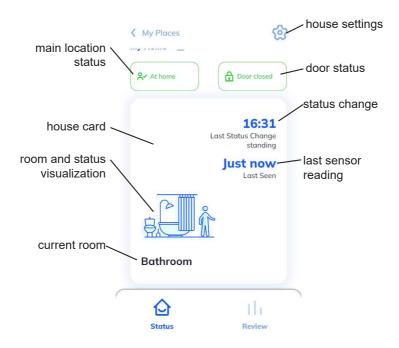


Figure 6.2:

Tapping on "Review" on the bottom right opens the review page, shown in figure 6.3. In the top the movement index of today and yesterday are shown. Below that, there are multiple cards that give you information on the monitored user over a longer period, starting from the day Larry was installed in the house.

The daily data of the monitored user is evaluated at the end of each day, which can be accessed in this page. The reports are comprised of:

- Activity Levels
- Appetite Changes
- Restroom Routine
- Sleep
- UV Index
- Outdoor Time
- Shower Time
- Inactive Time

Tapping any of these cards will bring you to the graphical evaluation as shown in figure 6.4.



Figure 6.3: Review tab

Figure 6.4: Sleep data

6.3 Notifications

The Larry app sends you notifications regardless of whether you have the app open. It is important that you set the required permissions in the system settings of your smartphone to allow Larry to send you notifications. Larry sends you status updates on the monitored user, as well as high-priority alerts. These are indications of anomalies and activation of the emergency call button. While status updates are signaled with a standard tone, a loud alarm tone is used for critical messages. Larry uses the

following notifications:

Door opened.

Front door was opened and not closed yet.

Door closed.

Front door was open and was closed.

The door has been opened and closed.

Front door was opened and closed within 60 seconds.

Door left open.

The time limit for the door left open has been exceeded.

[$Settings > Rule\ management > Door$]

Monitored user left home.

After the front door has been opened, Larry checks whether there is a person in the house.

Monitored user is at home.

Will be sent upon the monitored user returning home.

User did not wake up yet.

The monitored person is still sleeping and has exceeded the set time for getting up.

[Settings > Rule Management > Inactivity]

Extreme sleeping detected.

The monitored person sleeps longer than the set total amount of sleep per day.

 $[Settings > Rule\ Management > Inactivity]$

Extreme shower time detected.

The set duration for the shower has been exceeded. [Settings > Rule Management > Toilet]

Extreme sitting detected.

The maximum allowed sitting time has been exceeded.

[Settings > Rule Management > Inactivity]

Extreme restroom duration.

Excessive time spent in the toilet.

[Settings > Rule Management > Toilet]

Gateway Offline.

The gateway's connection was lost.

Anomaly detected.

The supervised user could not be located by Larry. This

6.4 Settings 29

may be because the supervised user is in an area without sensor coverage, or the supervised person may have fallen. If you should receive this notification, please ensure that you check the well-being of the supervised user.

Emergency button pressed.

The supervised user pressed the emergency button.

New user has been added.

The house administrator has allowed a new user access to the house.

New User is Waiting For Approval.

Another user has requested access to a Larry-powered house and is awaiting administrator approval.

Old notifications can always be checked in [Settings > Notification History].

6.4 Settings

The configuration settings of each house are accessed with the gear on the upper right. Tapping gives a list with the following:

- Rule Management
- Notification History
- Notification Management
- Device Panel
- Notes
- Administrator Panel

Rule Management allows to set the rules for the different push notifications that are triggered by the monitored user's behavior. **Notification History** shows all push notifications that were triggered, whereas **Notification Management** allows to deactivate or activate specific notifications triggered by Larry.

The **Device Panel** shows the room structure of the house and connected sensors. This menu allows to add or remove rooms and sensors.

In the **Notes** section, each user can take notes, which will be shared with all other users connected to the house.

At last, the **Administrator Panel** controls the access settings to the house. The administrator can approve or deny requests to enter the house, remove users, and control their level of access.

6.5 Connecting Additional Users

In order to add an additional user to your Larry system, the person needs to create a user account as described in section 4 (see page 9). Then, in the app, the user needs to tap on "add place" in the "my places" page. This will open up the gateway QR code scanning page. Scan the gateway's QR code and confirm. Alternatively, the user can also enter the gateway ID given below the QR code.

Once confirmed, the administrator of the house will need to enter the **Administrator Panel** and approve of the request.

7. Troubleshooting

Sensor Offline

Check the device panel and enter the sensor's information page. If the batteries are shown low, try replacing them.

Sensor Pairing doesn't complete

Your sensor might be out of range of the gateway. While still on the pairing page of the sensor installation menu, press the sensor's pairing button for at least 5 second until it enters pairing mode, which is signalized by a constant red light. If the red light on the sensor starts flashing after 60 seconds, you are out of reach.

If out of reach, try relocating the sensor, or try to move the gateway to a more central location.

"please trigger any sensor" message

After extended power loss or loss of internet connectivity, Larry might be unable to locate the monitored person's status. Once any motion is detected, this message will vanish, and the system will return to normal function.

Gateway: blue and green LED's are flashing synchronously

Your gateway is installing an update. During the update, which will only last some minutes, the system might not respond to your App.

Can i use wireless to connect my gateway to the internet? No, unfortunately.

My MeetLarry App shows "Gateway Offline"

This can happen due to power cut or due to loss of internet connectivity of your gateway.

A sensor LED is blinking fast and doesn't respond

The sensor is updating. This process should take 5 minutes. If it doesn't resolve itself, contact support.

The monitored user is shown in the wrong room

Check that room's motion sensor. Motion sensors can be triggered by moving objects outside, for example, when the window is left open and the sensor is facing that window. Try to find a location for the sensor that doesn't face a window.

How long does it take to detect an anomaly?

An anomaly is the event that the monitored user is not seen for an extended amount of time. After installation, this window will start at 120 minutes, and will be gradually lowered to match your house. This process will take about two weeks after installation.

I can't enter pairing mode with my sensor

This indicates low battery charge. Try changing the batteries.

Can i monitor my garden with Larry?

No, Larry is made for indoor use only.

I'm not getting push notifications

In the app, go to the root menu, log out, and then log back in. You will be asked immediately if you want to allow the Larry app to send you push notifications. Confirm the query.

I have a problem not listed

Contact our support by tapping "Contact us" in the "My Places" page. We will be happy to help!!

8. FAQ

How many rooms can be monitored with Larry?

Larry supports up to 16 sensors in total, without limiting the number of rooms.

Is Larry easy to install?

Larry needs minimal skills for installation. All sensors communicate wireless, and are battery powered. You only need to stick them to the apropriate places, and connect our gateway to your internet modem.

Is Larry suitable for me?

Larry is intended for everybody who is living alone at home, and desires to increase his own safety.

Is there a warranty?

We offer lifetime warranty for all components, excluding misuse and intentional damage. If you encounter any issues, please don't hesitate to contact our support.

What about data security and data privacy?

Our server system uses Amazon Web Services (AWS) located in Germany. AWS uses the highest standards in encryption and data security.

What about my privacy?

In order to maintain the monitored person's privacy, Larry was designed to work totally without cameras or microphones.

What about pets?

Larry can differentiate between pets and persons. Pets of up to 80 (ca. 35kg) pounds will be ignored.

What about visitors?

While visitors being present, the fall detection will deactive automatically, and re-engage by itself once your loved one is home alone again.

What do I need to install Larry?

You need a smartphone, and internet connection in th monitored user's house and of course a Larry sensor kit.

What does Larry do?

Larry locates the monitored user in the house, and keeps track of their very basic activity, such as sitting, standing or sleeping. Larry knows whether the monitored user is at home or not, and safeguards the monitored user by detecting falls and abnormal activity patterns, such as extreme durations in the bathroom. Furthermore, Larry comes with one or more emergency call buttons, which can also be used to actively request for help.

What size of houses does Larry support?

Outdoors, our sensors have a range of up to 100m. Inside the building, this range can sometimes be significantly reduced due to concrete walls.

ABOUT LARRY

Legal Notice

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Contact Us

235 Sunset Lake Road, Suite B-2 Newark, DE 19702 USA hello@meetlarry.io www.meetlarry.io

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -- Reorient or relocate the receiving antenna.
- -- Increase the separation between the equipment and receiver.
- -- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -- Consult the dealer or an experienced radio/TV technician for help. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.