EYNTRY
Products

EYNTRY

EYNTRY Explained

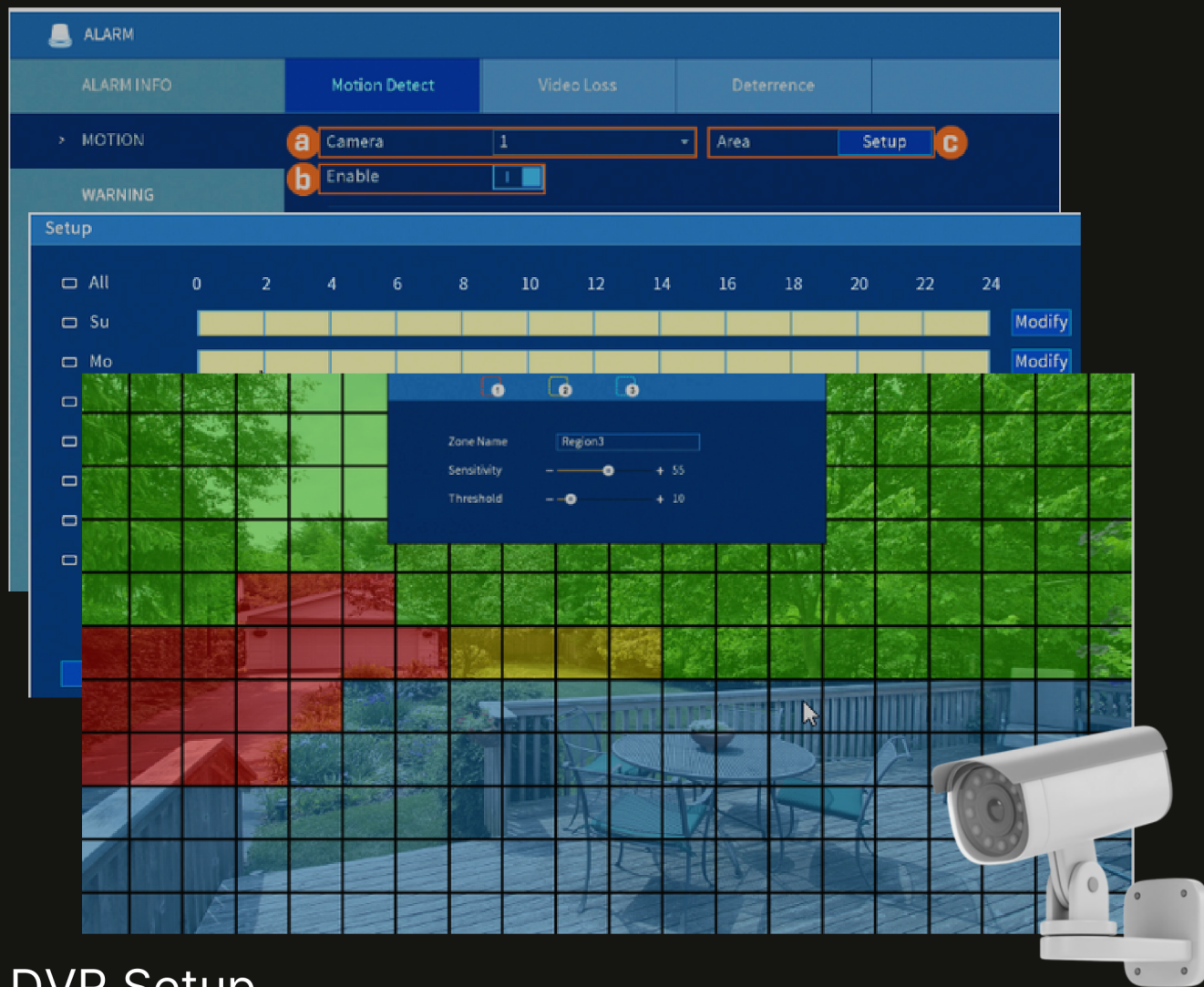**What you need to know**
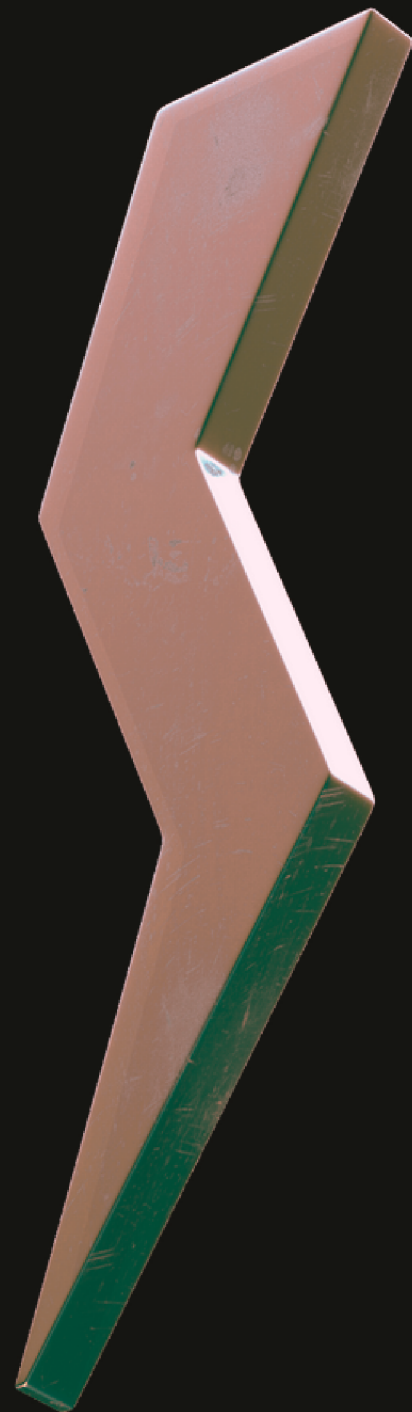
DVR Setup

Trends in cameras

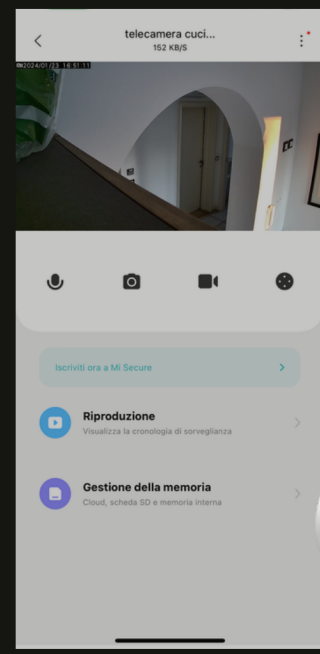**There are 2 main trends in the camera world:**

IP (industrial) cameras:

- **Simple, monitoring and recording**
- **Motion detection**
- **License plate detection**
- **etc**

Smart (consumer) cameras:

- **smartphone apps**
- **monitoring**
- **notifications**
- **motion detection**

Before EYNTRY

CCTV

- IP cameras and smart cameras useful for recording and monitoring
- Prone to vulnerabilities, not very up-to-date allow easy access for attackers
- Difficult to configure

Automazione

- Via PLC, difficult to program, and inflexible
- Sensors to monitor:
  - attendance
  - statuses of various accesses
  - whether it is day or night
  - whether it has rained
  - vehicle access or passage

Industrial Barrier Management

Case Study #1

NEED

Open barrier according to certain times and keep it open.
Open barrier in case someone needs to leave

SOLUTION

PLC for opening at established times. Sensor for opening the barrier when cars pass

EYNTRY

With EYNTRY, it is sufficient to program 2 scenes, one triggered according to time, which opens and keeps the barrier open.
The other scene, on the other hand, is triggered when a car (recognized object) enters within a programmed area, with a set direction of travel

Industrial Barrier Management

Case Study #1

RULE 1

Condition: IF car or forklift or truck or pedestrian or cyclist or motorcycle ENTER zone1
Actions: CLOSE out1 for 1 sec

RULE 2

Condition: IF time 8:00 am
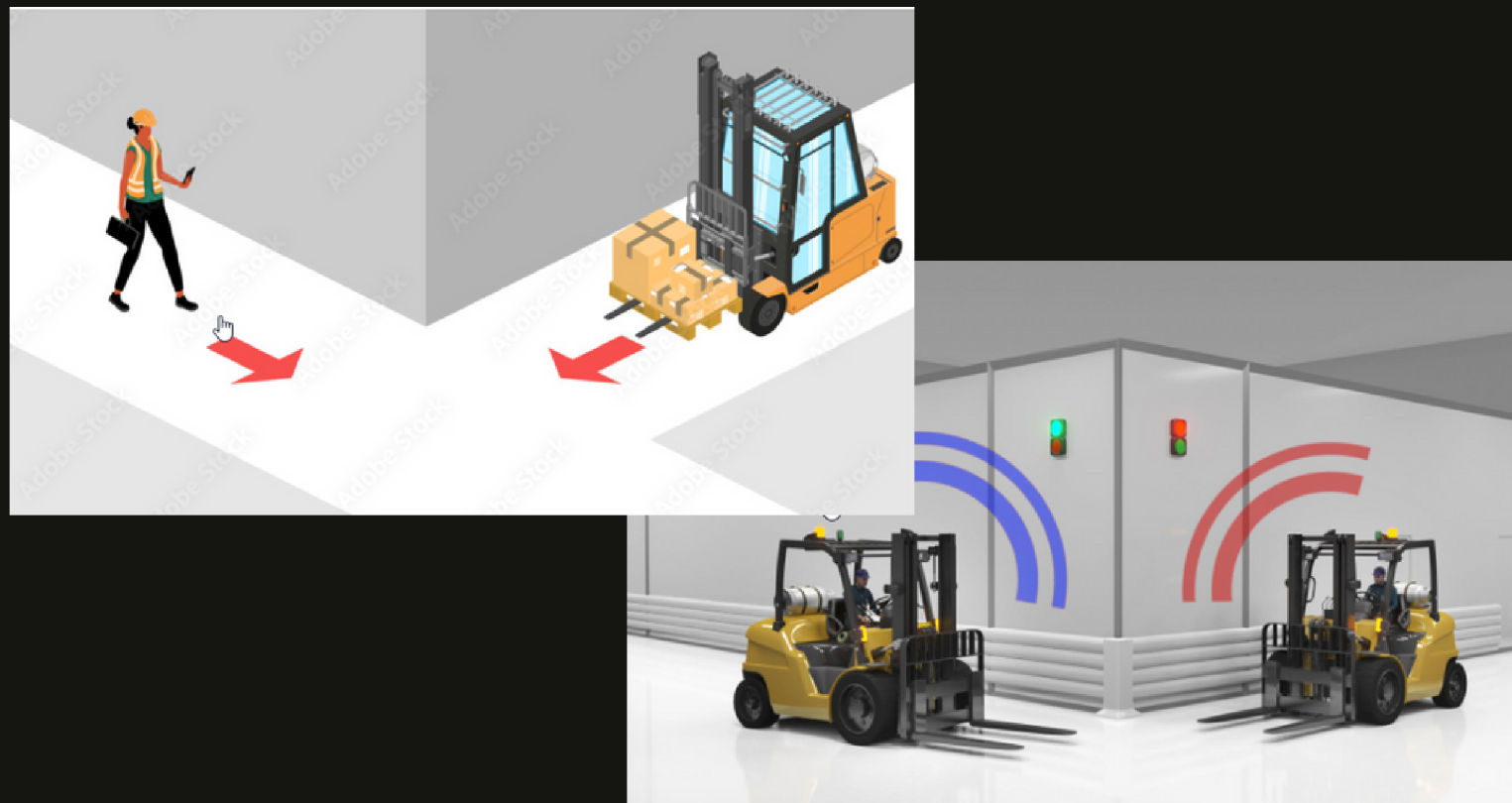Actions: CLOSE out1 for 1 sec

RULE 3

Condition: IF car or forklift or truck or pedestrian or bicyclist or motorcycle ENTER OR
IF machine or forklift or truck or pedestrian or cyclist or motorcycle IN zone2
Actions: OPEN out2 DURATION exit

Avoid Accidents

Case Study #2

NEED

Help detect dangerous situations where there are blind spots and moving vehicles, for example a forklift in an area where there are also pedestrians.

SOLUTION

Proximity systems, where each employee has a device equipped with an antenna as PPE, and if there is a machine within a radius of x meters, both the pedestrian and the driver are alerted.

EYNTRY

With entry it is sufficient to draw the sensitive area, and set the rule that if it detects a pedestrian and/or more than one forklift in the same area, it must close a contact, which will turn on the traffic lights,

Avoid Accidents
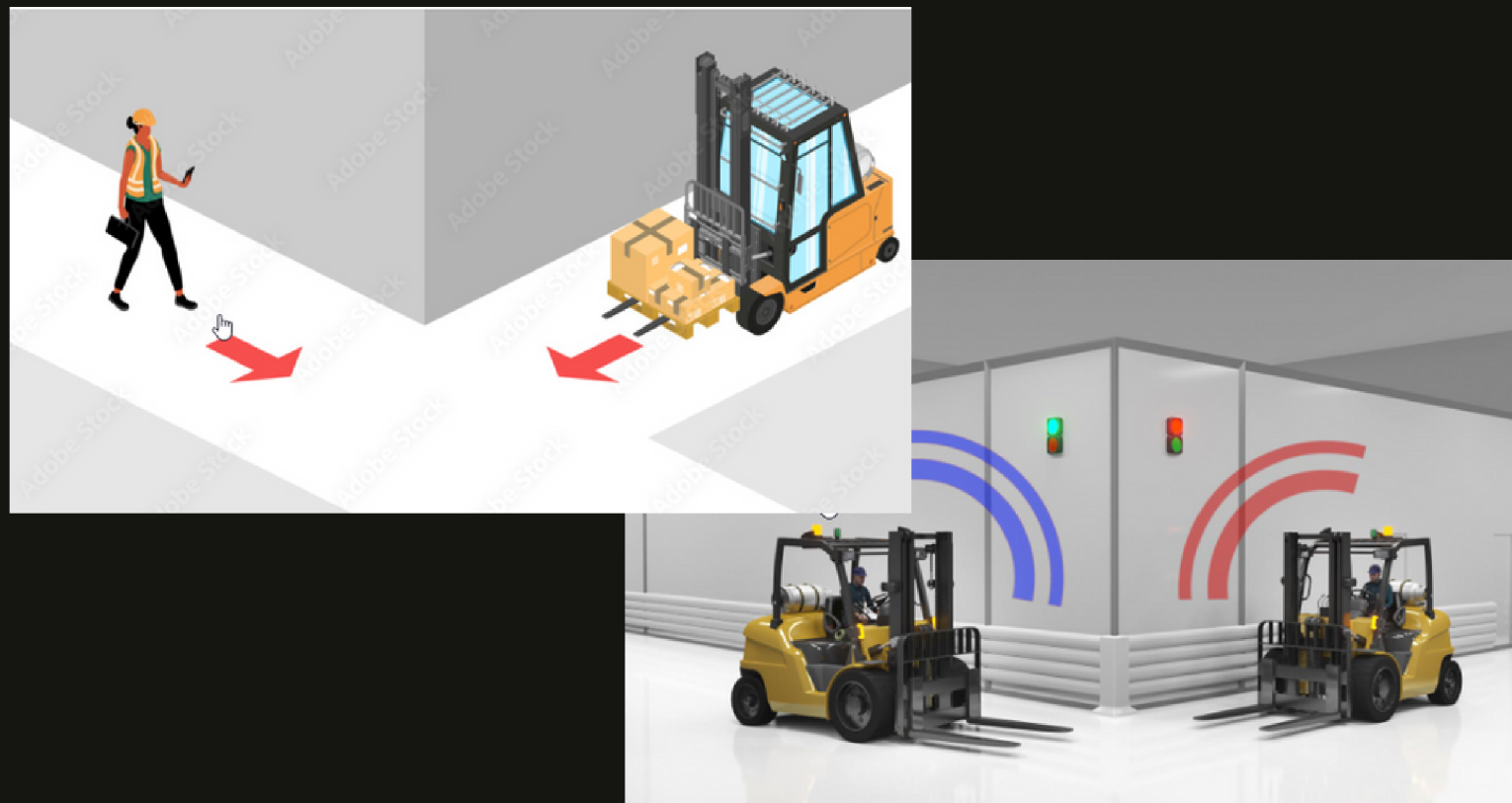
Case Study #2

RULE 1

Conditions: IF forklift APPROACHING AND IF pedestrian APPROACHING
Actions: CLOSE out1 DURATION 10s

Avoid Accidents

Case Study #3

NEED

Exiting through a gate that is directly onto the street is not always safe. You don't see any cars/cyclists/motorcyclists coming.

SOLUTION

Nowadays with the permission of the municipality, it is possible to install ad Hoc mirrors

EYNTRY

By setting dangerous zones as sensitive zones, you will be able to have a contact close when different types of vehicles are detected, so you will know right away whether or not you can safely exit.

Avoid Accidents

Case Study #3

RULE 1

Conditions: IF car or truck or pedestrian or motorbike or bicycle APPROACHING
Actions: CLOSE out1 DURATION Exit

Detect occupied spots

Case Study #4

Detecting the number of occupied and available parking spaces within a parking lot is unca uitable, especially when tied to our Saturn card

SOLUTION

Sensors at the entrance and/or exit of the parking lot so as to count the remaining spaces.
Cameras specifically for this purpose, with complicated protocols, and to be made compatible

EYNTRY

Sol. 1: set as many sensitive areas as there are parking lots, and when they get busy have one contact temporarily closed, when they get free have another contact closed.

Sol 2: create sensitive passing areas and detect only who enters or leaves so as to keep count, as with 2 am sensors without wiring even 1

Detect occupied spots

Case Study #4

REGOLA 1

Condition:
IF machine or motorcycle ENTER zone1 OR
IF machine or motorcycle ENTER zone2 OR
IF machine or motorcycle ENTER zone3 OR
....
IF machine or motorcycle ENTER zone100
Actions: CLOSE out1 DURATION 1 sec

REGOLA 2

Conditions:
IF car or motorcycle ENTER zone 101
Actions: CLOSE out 2 DURATION 1 sec

REGOLA 3

Conditions:
 IF car or motorcycle EXITS zone 101
Actions: CLOSE out2 DURATION 1 sec

Detection for Loading Bays

Case Study #5

NEED

In loading bays that have a traffic light system, it is necessary to detect when a truck is properly positioned and then from the inside the door can be opened and loaded.

SOLUTION

Mechanical or optical sensors placed on the rubber bumper detect the correct positioning of the truck

EYNTRY

by setting sensitive arre you can also achieve this with EYNTRY, plus with one room you can most likely handle more spots, so it is potentially cheaper, not to mention the other benefits it can provide in terms of security at the same time.

Detection for Loading Bays

Case Study #5

RULE 1

 Condition: IF truck IN zone1 FOR >5 Sec.
ACTIONS: CLOSE out1 DURATION 2 sec

RULE 2

 Condition: IF truck IN zone2 FOR >5 Sec.
ACTIONS: CLOSE out2 DURATION 2 Sec.

RULE 3

 Condition: IF truck IN zone3 FOR >5 Sec.
ACTIONS: CLOSE out3 DURATION 2 Sec.

Detection speed

Case Study #6
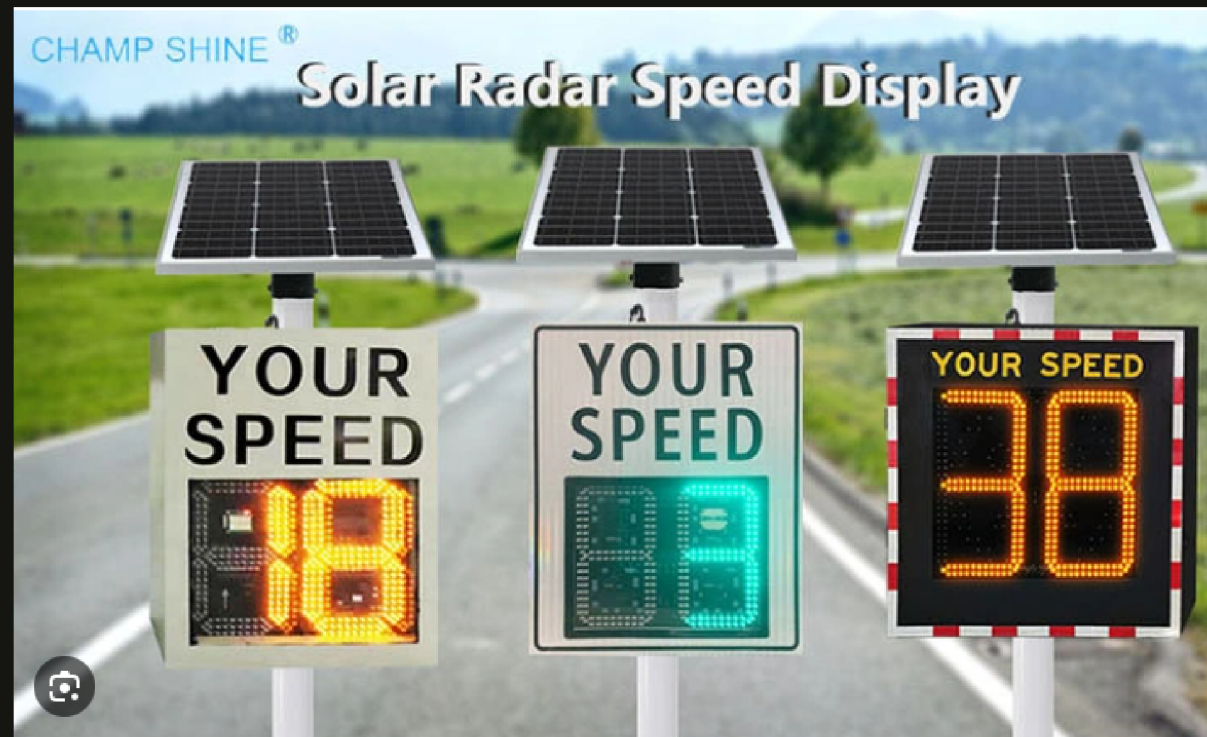
Detection of speed, in enclosed/private spaces, and if above a given limit notify someone.

Soluzione

Use very expensive traffic radar

EYNTRY

Set the sensitive area within which you have to calcoalre the speed and the categories of vehicles for which to calculate the speed. when this limit is not respected you can have a traffic light or led panel turn on, send a notification or much more.

Detection speed

Case Study #6
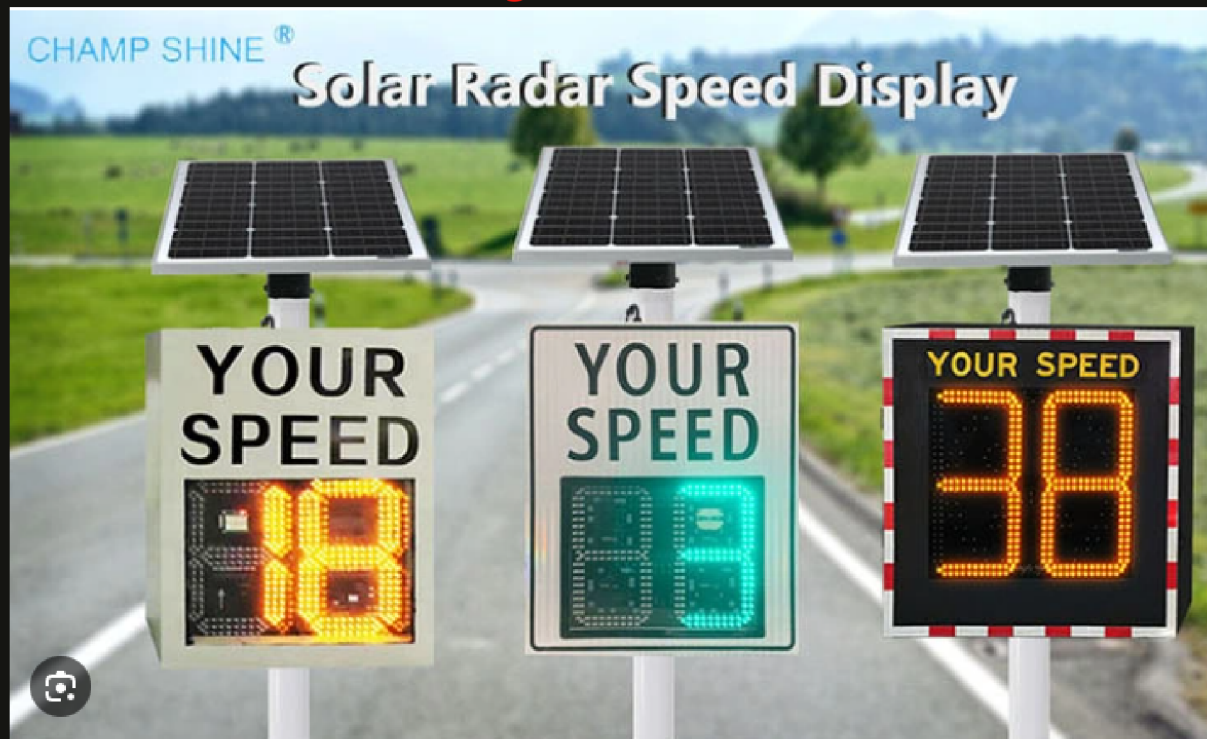
RULE 1

Condition: IF car, truck, motorcycle SPEED > 50 km/h
Actions: CLOSE out1 DURATION 5 sec.

To these questions there is a solution

EYNTRY

An intelligent home and
industrial automation system

EYNTRY

StandAlone camera

- 1x Camera 2.8Mp/5Mp
- No internet connection required
- 3 relay Output (nc/no)
- 5V 3A power supply
- <100ms framerate
- Jatsonian/Rpi based
- No upgrade except via cable

Network plug and play device

- Autodetect IP cameras on local network
- Local web server to host a webapp to program the camera
- Computer vision onboard
- Internet connection for updates only
- Yes remote stream
- Yes Notifications (mail/API/HW)
- Modular output 5 relays per module (nc/no)
- Maximum of 100 Rules
- Architecture tbd

Available functions

EYNTRY Standalone

- Onboard Computervision
- multi-object recognition and categorization
- multi-object tracking
- multi-object speed detection
- max 5 rules
- 3 Output
- Local web server to host a webapp to program the camera
- No remote stream
- No notification
- Day range 2-30mt
- Night vision 0-15mt

OUTDOOR DEVICE IP66

Available functions

EYNTRY
Network

- Onboard computervision, or cloud computing *
- automatic camera detection on the network, for each of them:
  - multi-object categorization and tracking recognition
  - multi-object speed detection
  - Local web server to host a webapp to program the camera
  - Yes remote stream
  - Yes notification
- Relay outputs from 5 modular outputs
- max 50 rules
- max 10/15 cameras manageable
- recording if required
- Cloud Deeplearning

INDOOR DEVICE IP44

EYNTRY

HW architecture

StandAlone camera
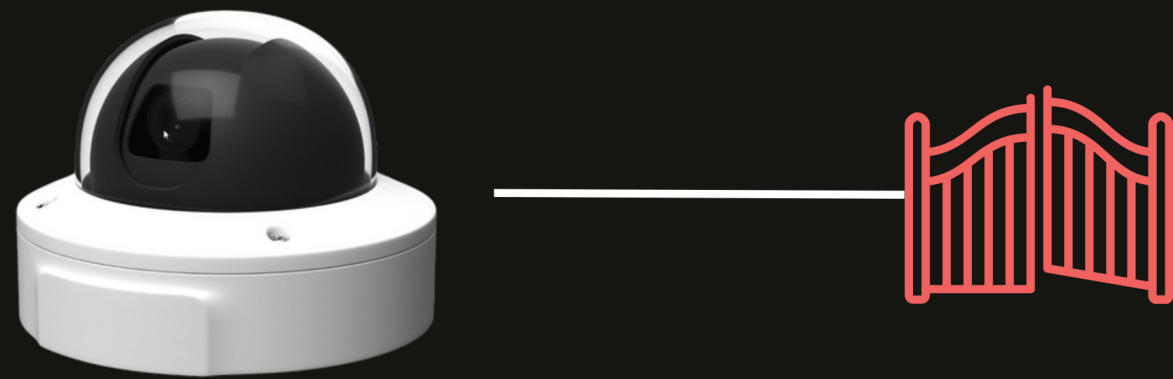
Network plug and play device

ALTERNATIVe #2
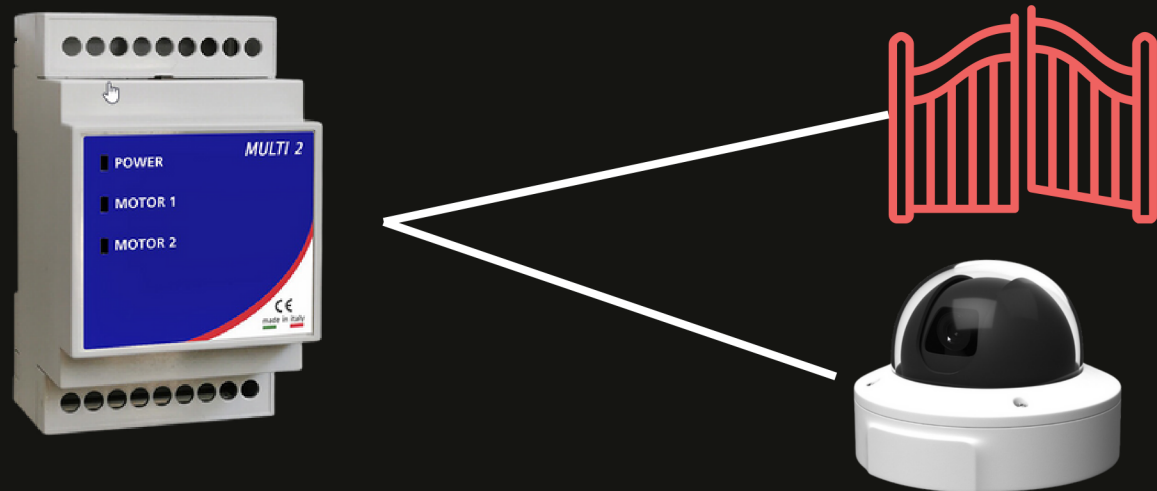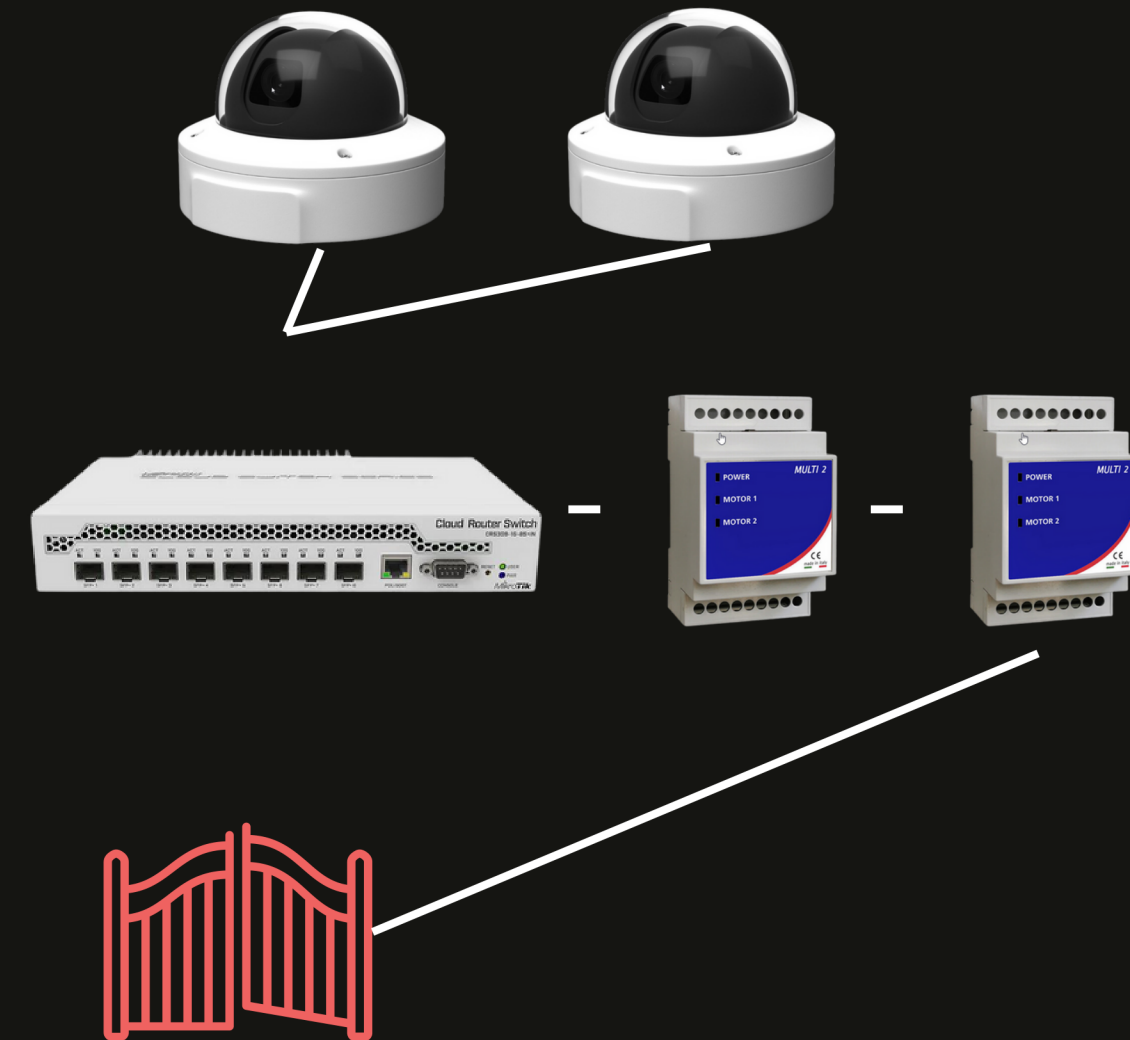
Design Reference

Setup

How to program EYNTRY

EYNTRY is designed to be quick and easy to program without the need for special knowledge.

The benefits of EYNTRY

UI/UX designed for the user
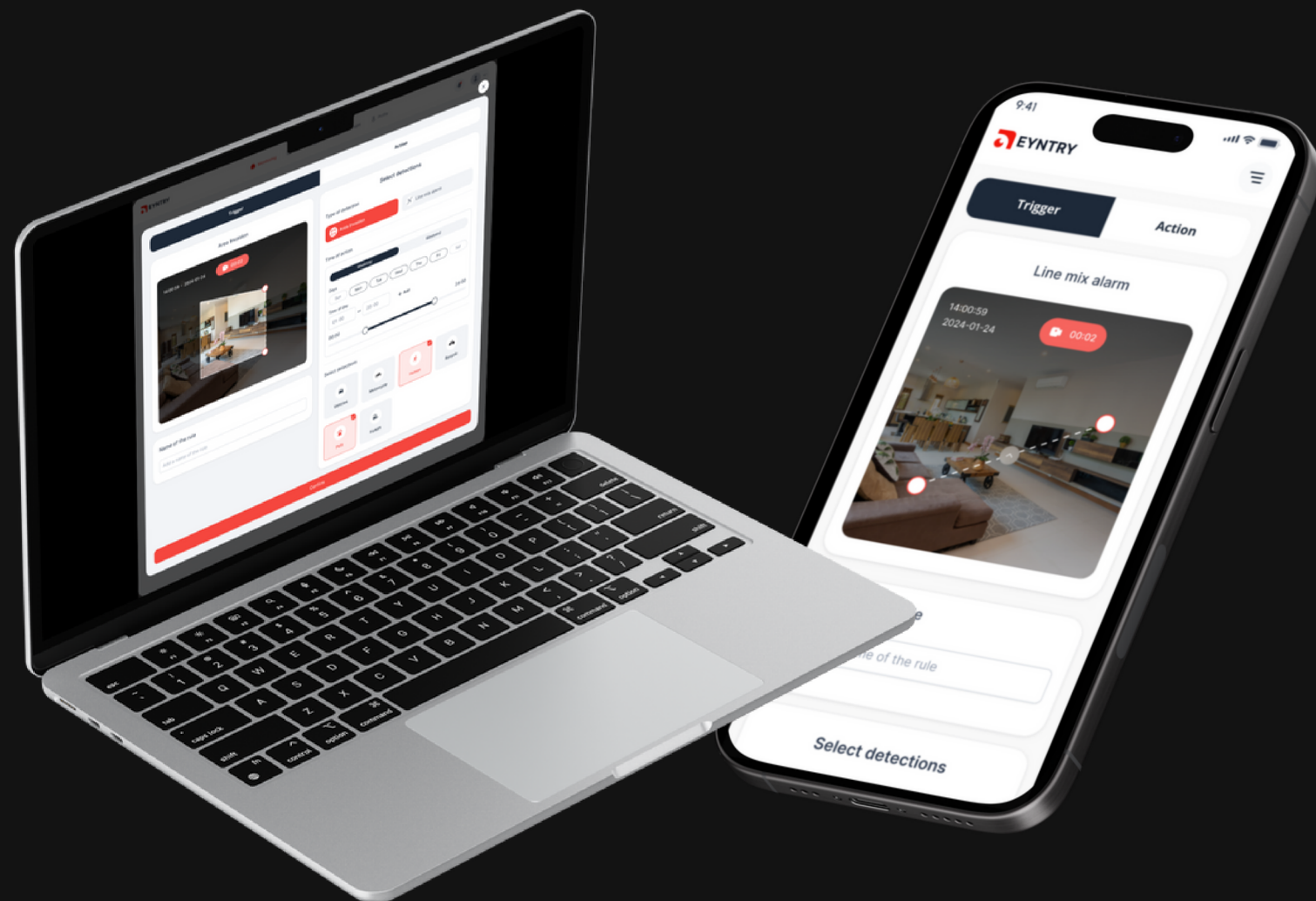
LOCAL SERVER

In both configurations there are webservers that host the programming user interface, this eprmises no need to download other apps, and connect via wifi to the system

UI/UX

Special attention is paid to the UI/UX so that the end user feels guided during programming. A responsive UI will allow the user to program from both mobile/tablet and PC

INTEGRATIONS

it will be possible to integrate our EYNTRY Network service with the best API providers (IFTTT/ZAPIER)

WebApp Flow
EYNTRY ST-A

Collegamento Wifi → Login Screen → Login: full access, o Anteprima: solo screen con aree evidenti e log eventi → Login

Login — Si → Invio Dati Login → Home Screen → Add rule → Rule list screen

Login — No → Log Screen

Add rule → log view → Log Screen

Rule list screen → Crea Regola → Rule edit → Salva
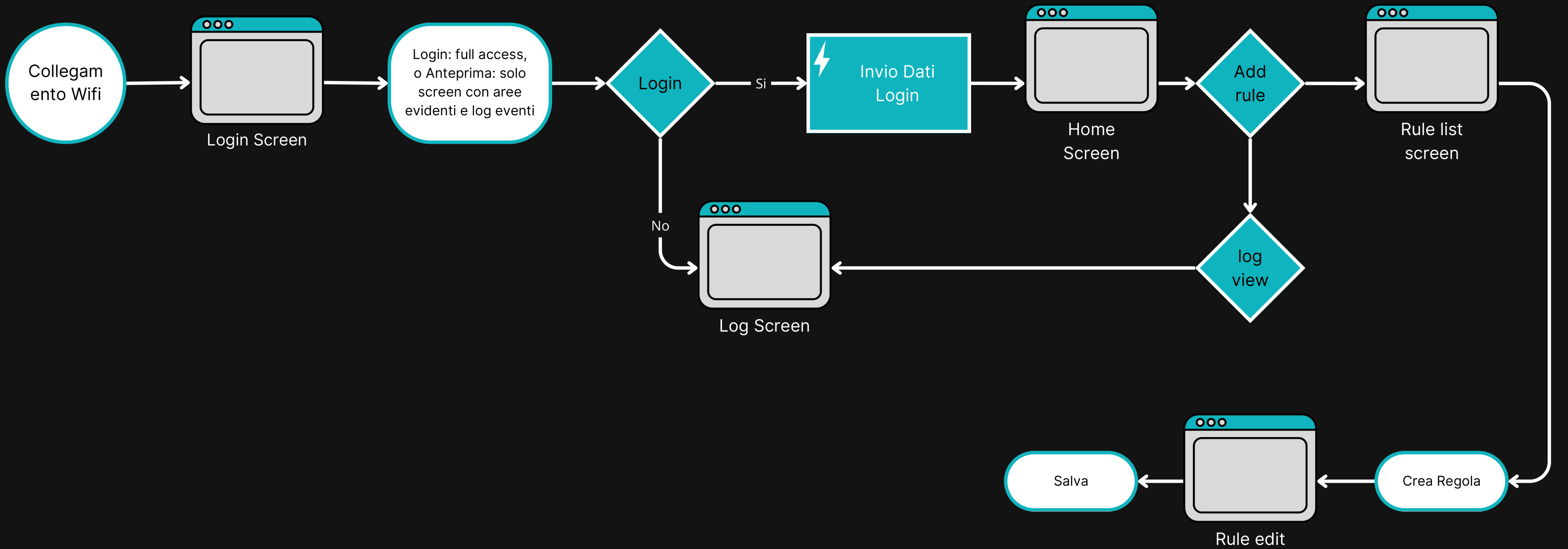
WebApp Flow
EYNTRY NETWORK

192.00.00.1 → Login Screen → Login: full access, o Anteprima: solo screen con aree evidenti e log eventi → Login

Login → Si → Camera list Screen → Add camera

Login → No → Log Screen

Add camera → NO → Edit camera

Camera stream input

Rule list screen → Add rule → SI → Rule screen

Add rule → NO → Edit rule

Edit rule → SI → Rule screen

Edit rule → NO → log view

log view → SI → Log Screen
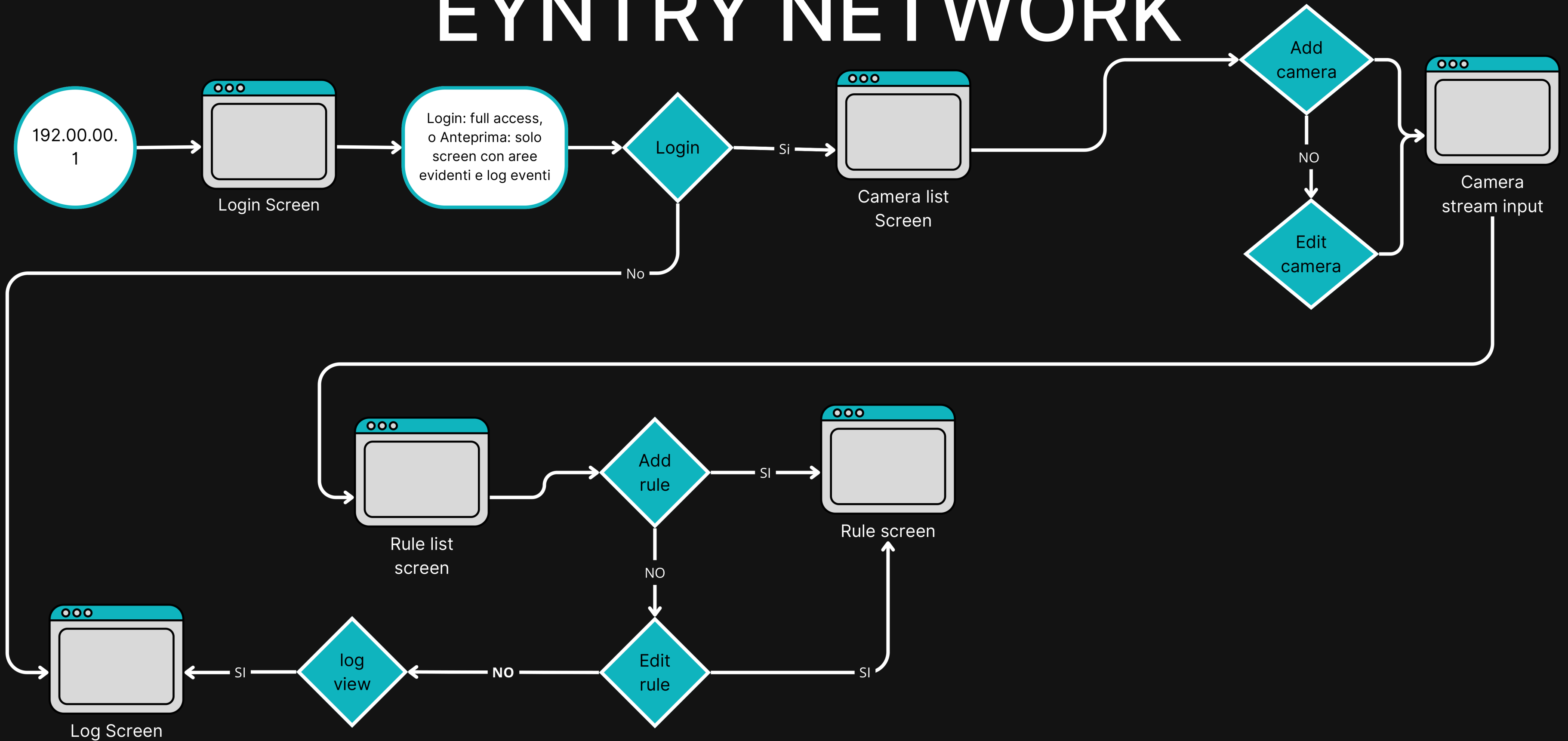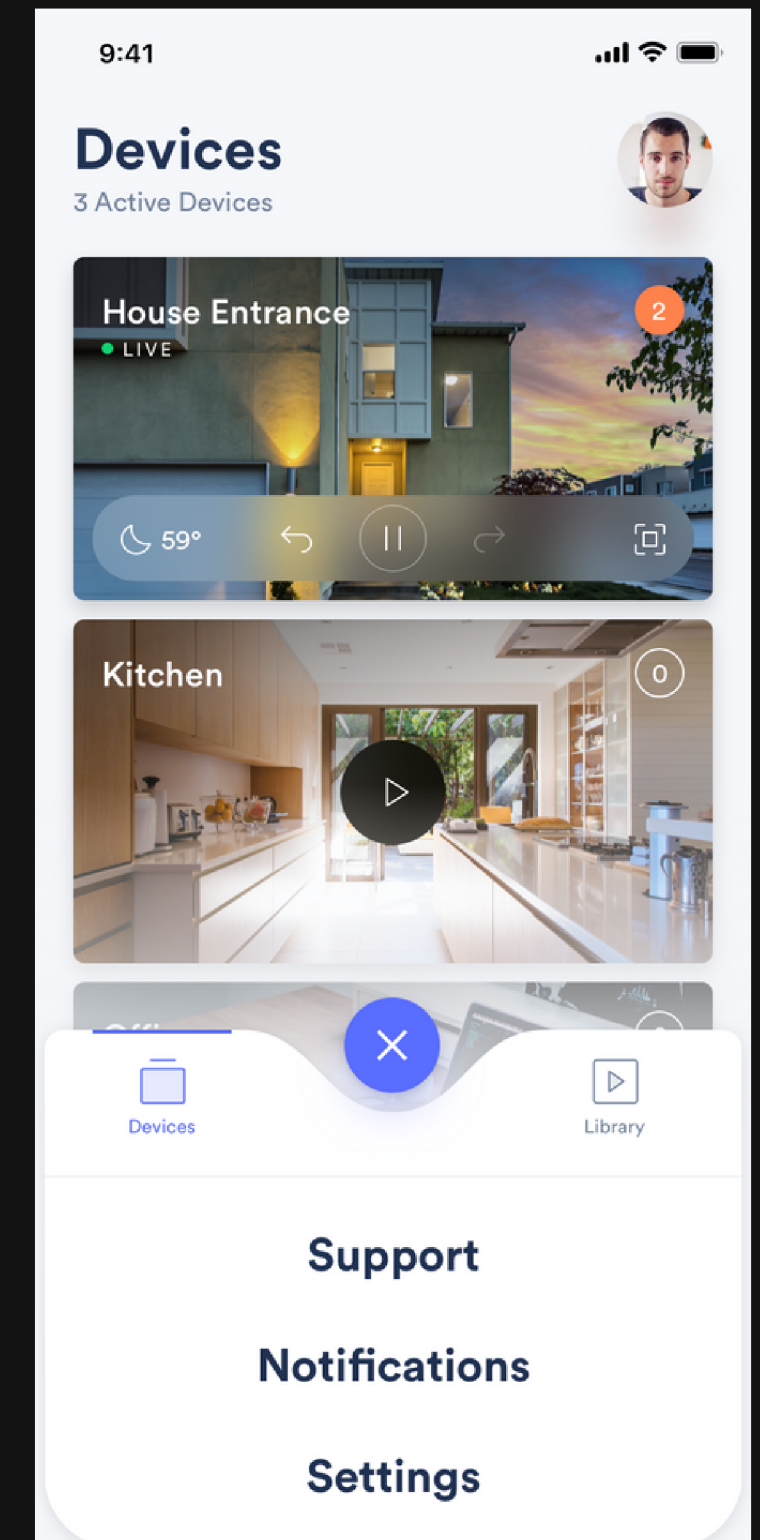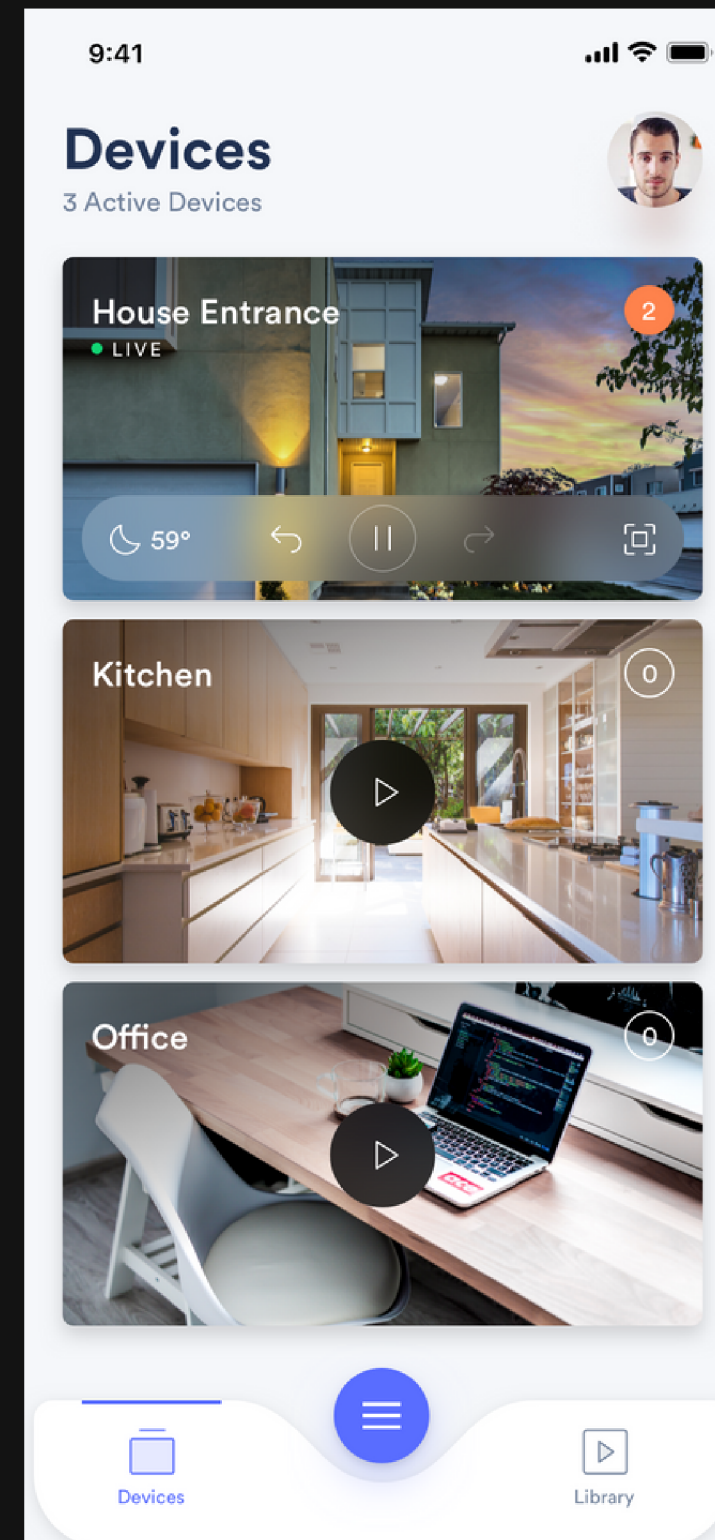
UI Reference
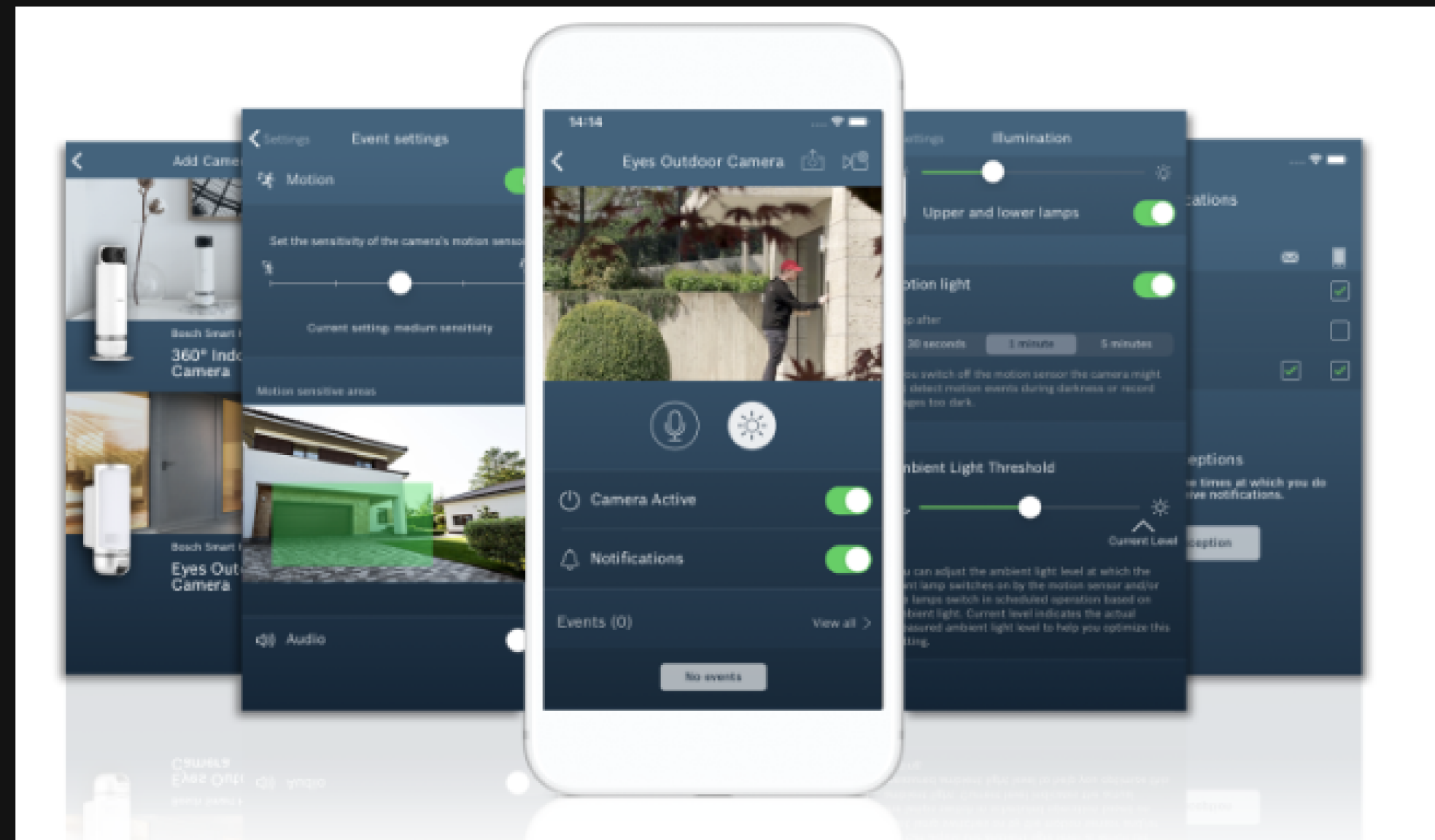
UI Reference

UI Reference
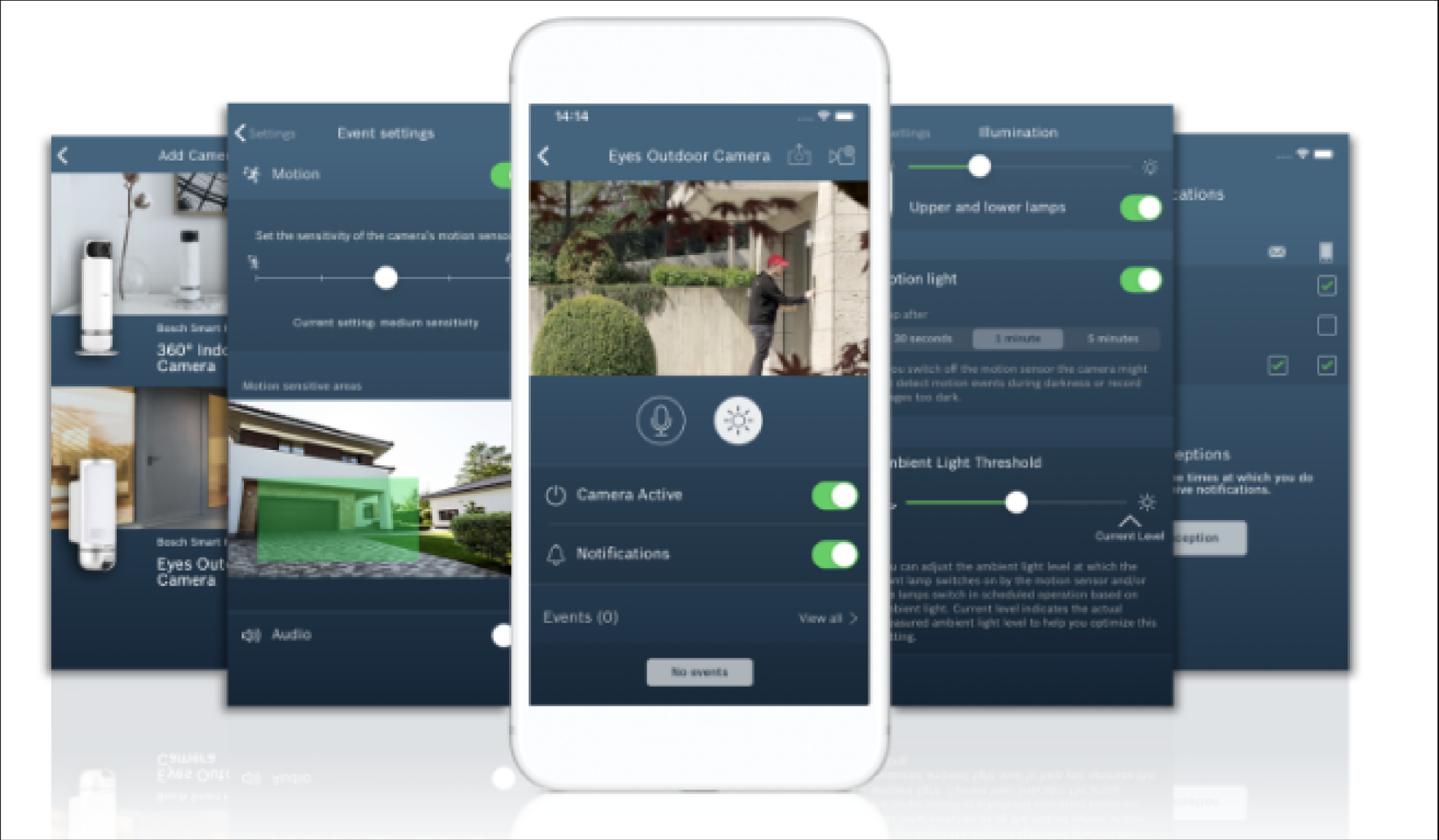
Home Page for NetworkDevice
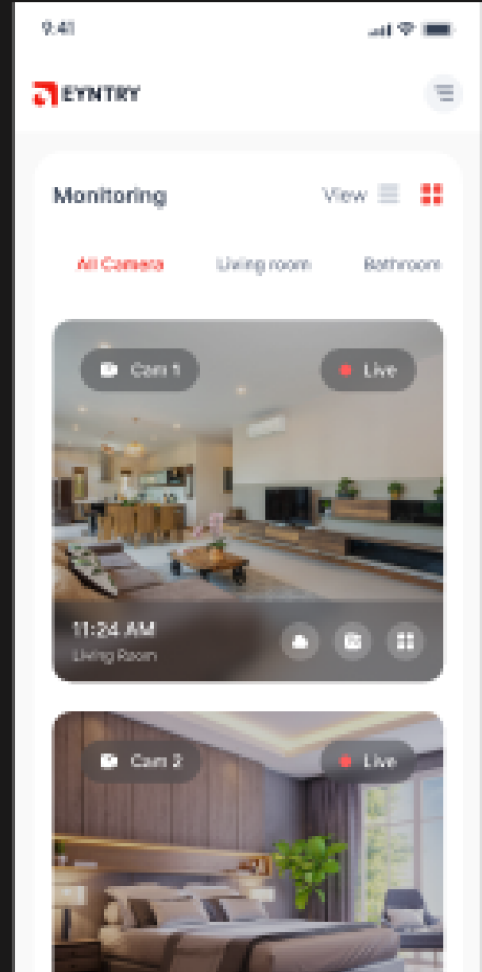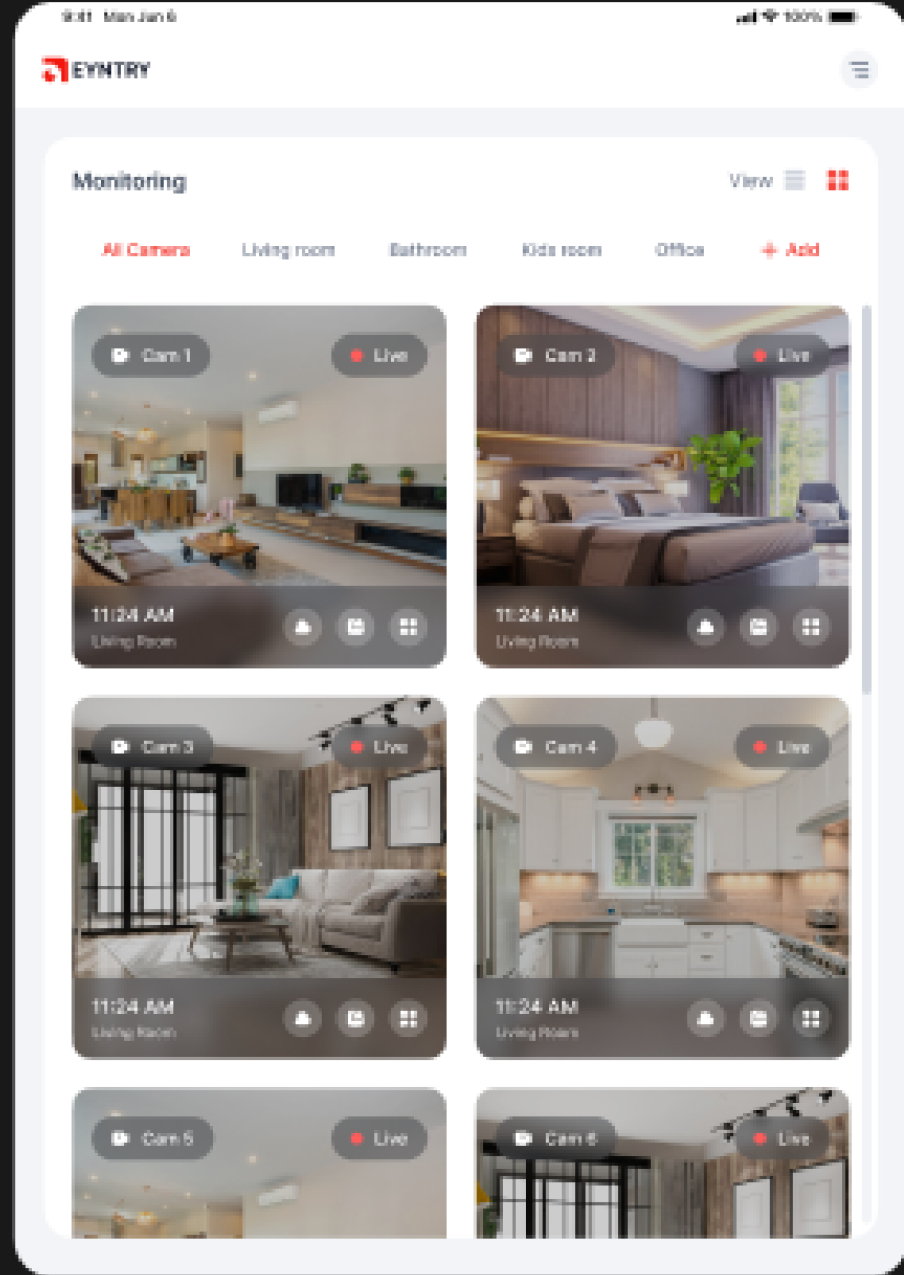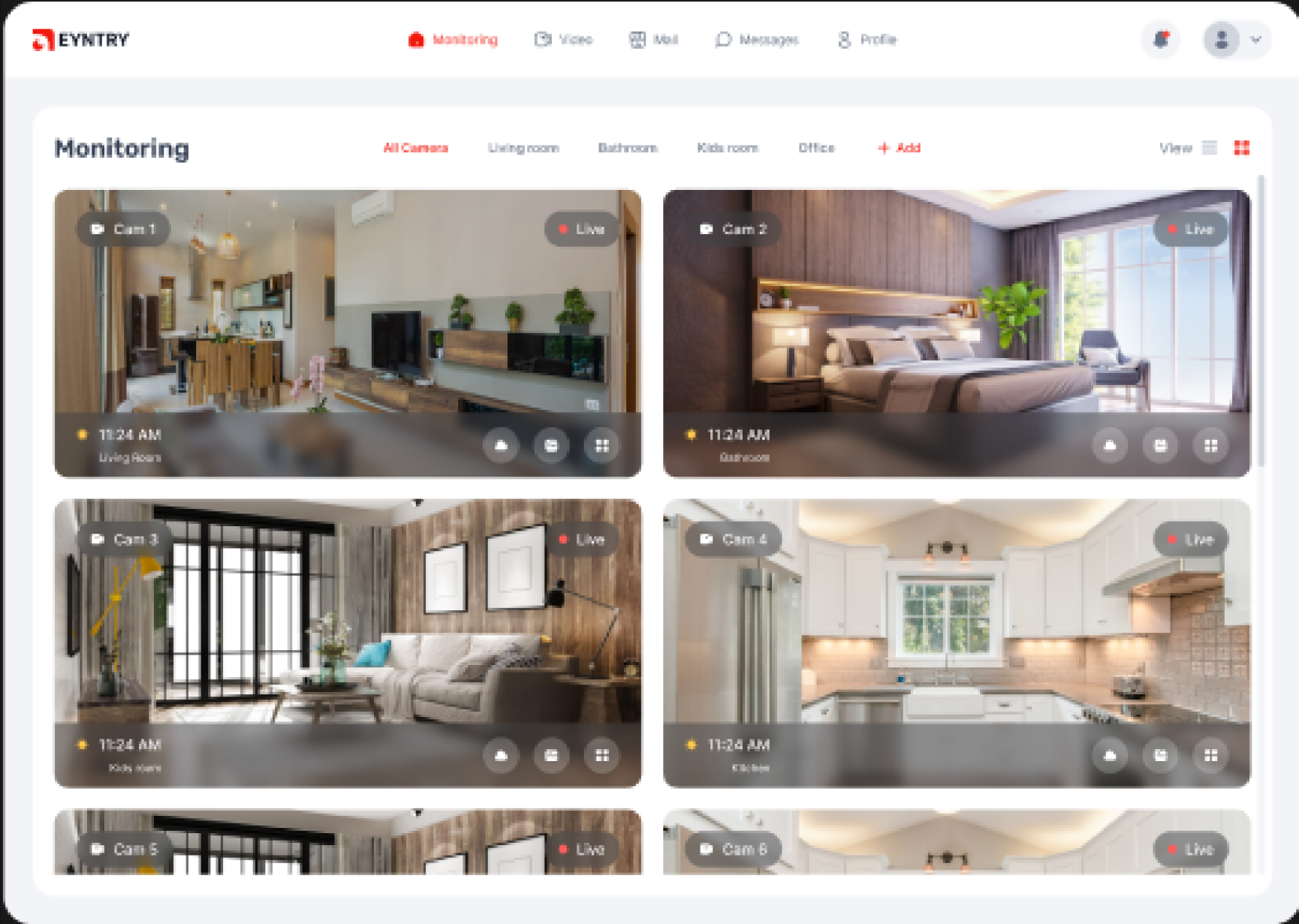
Camera Setting - Home for Standalone
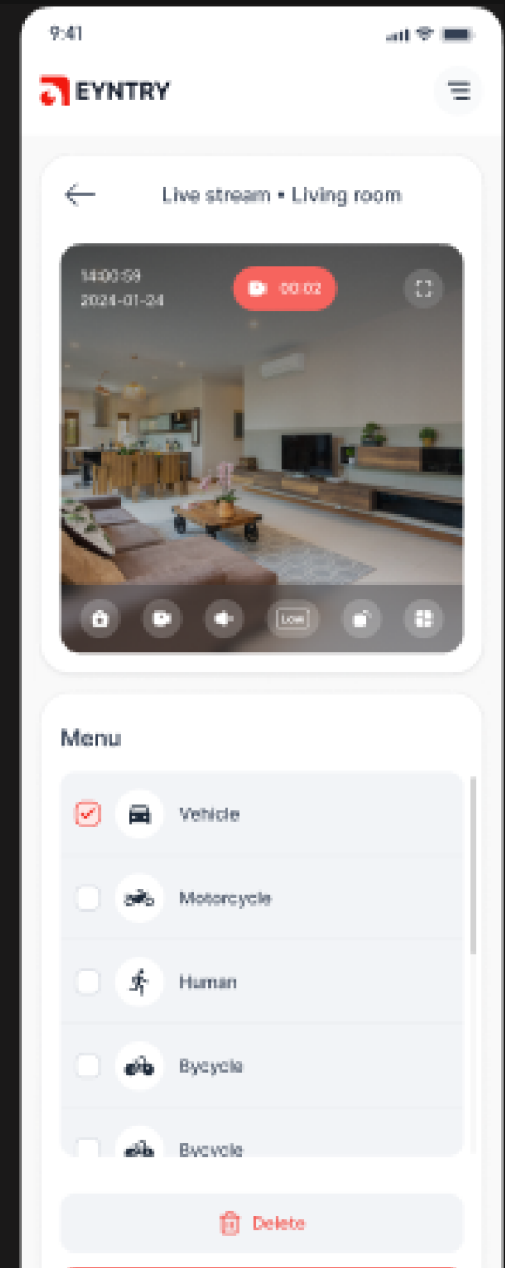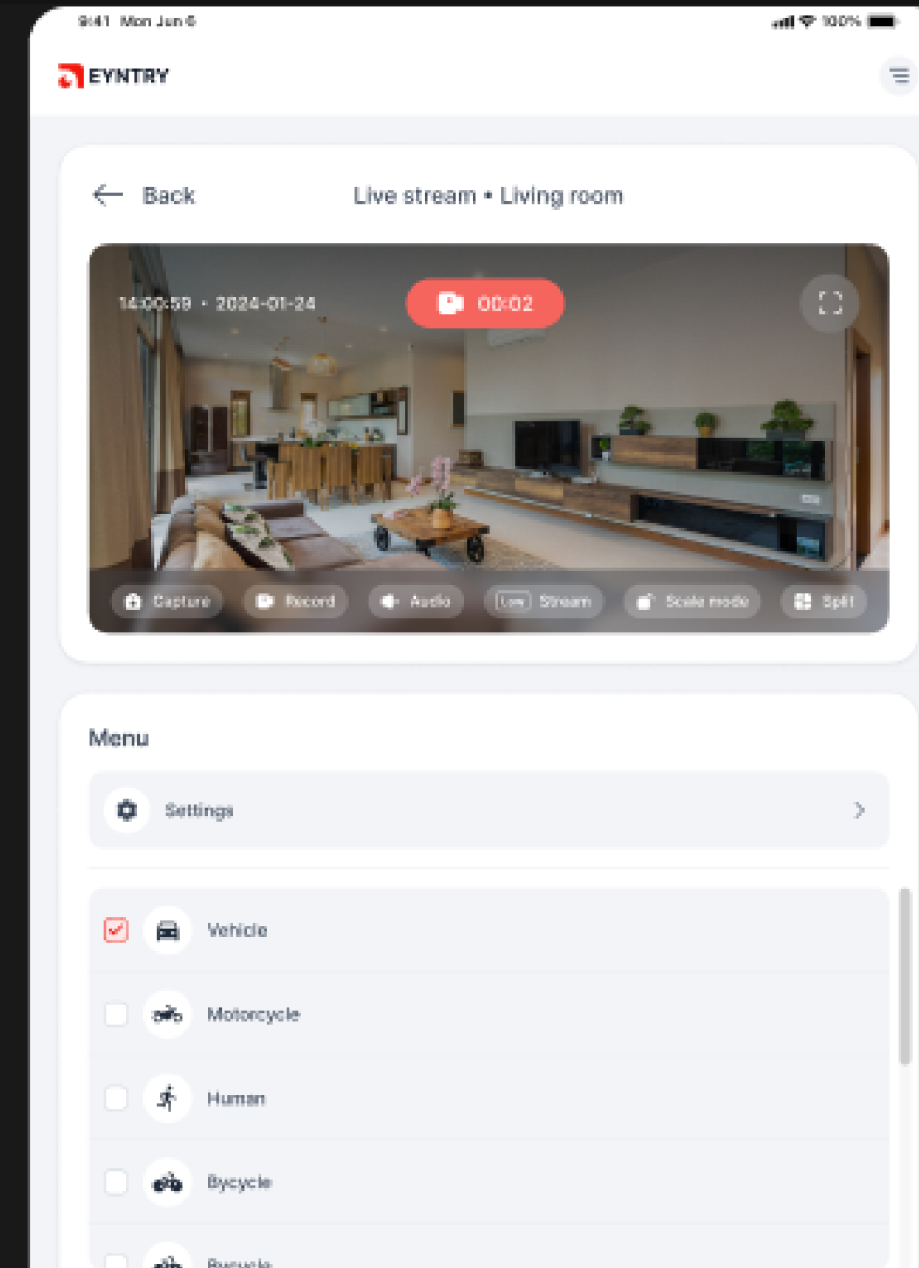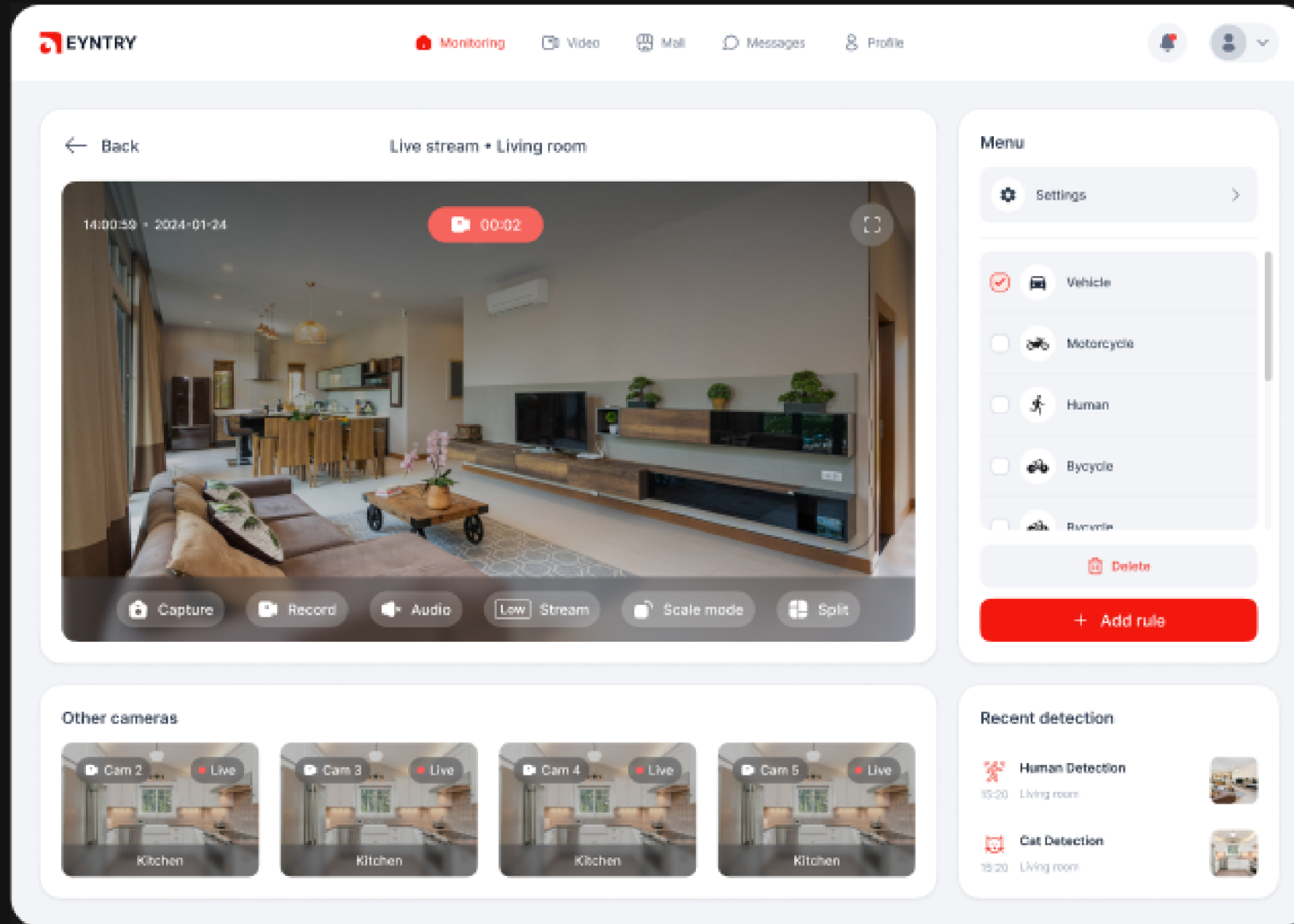
Home Page for Standalone
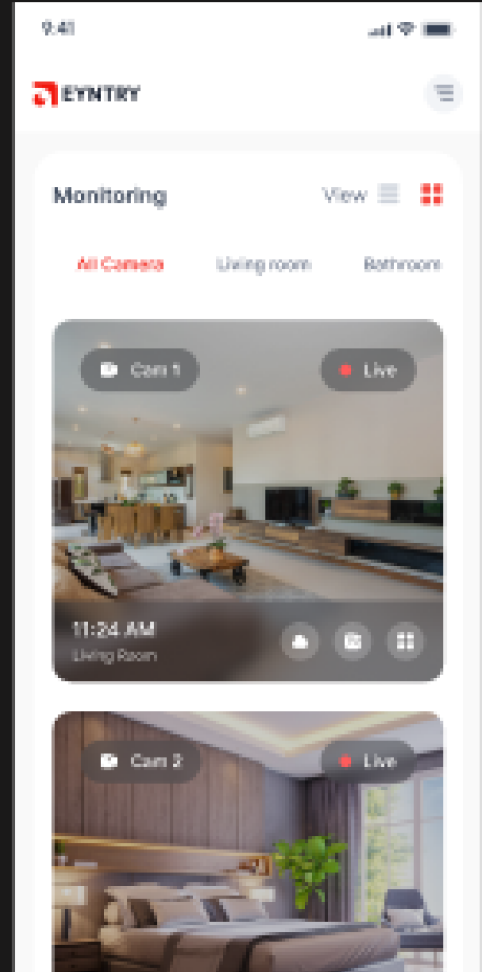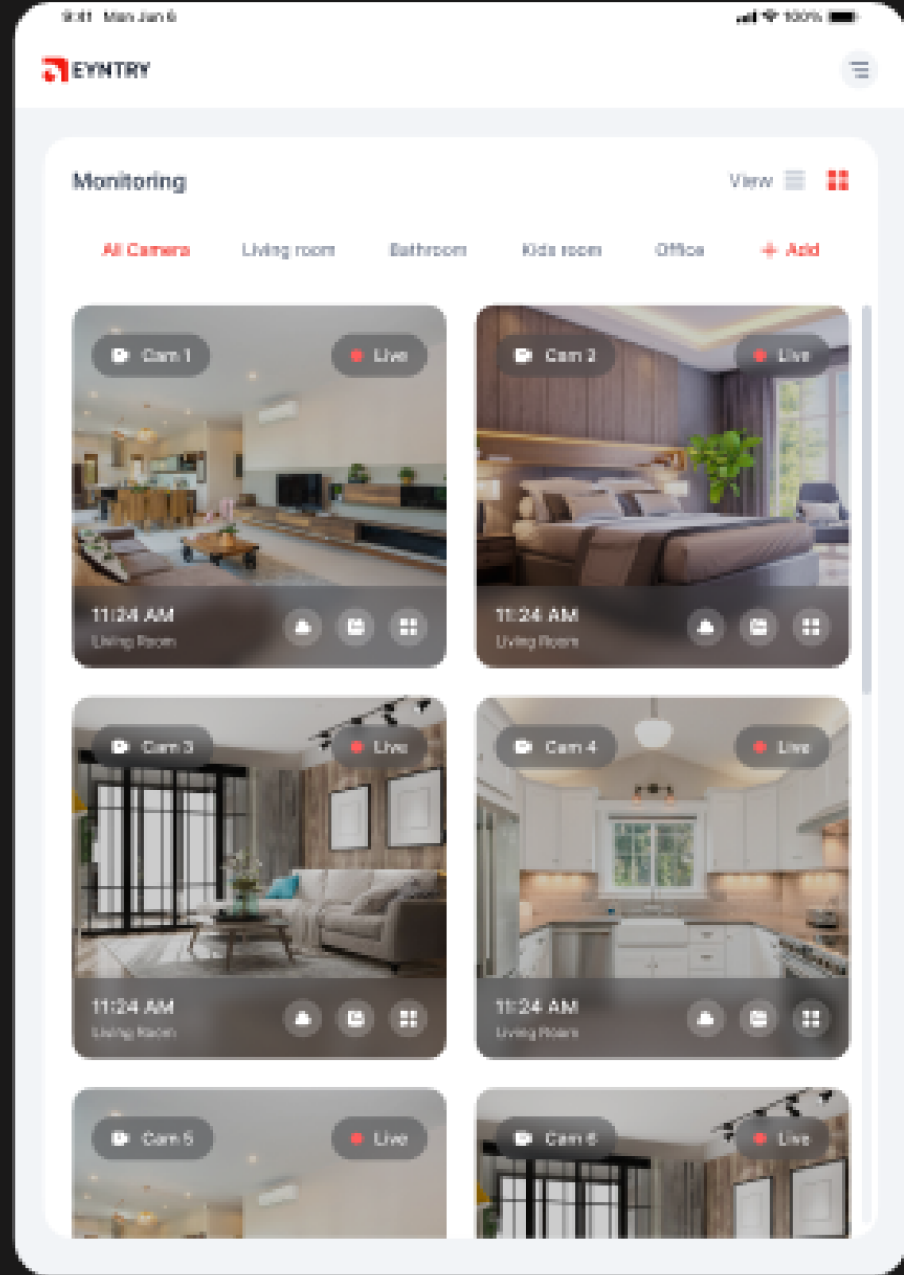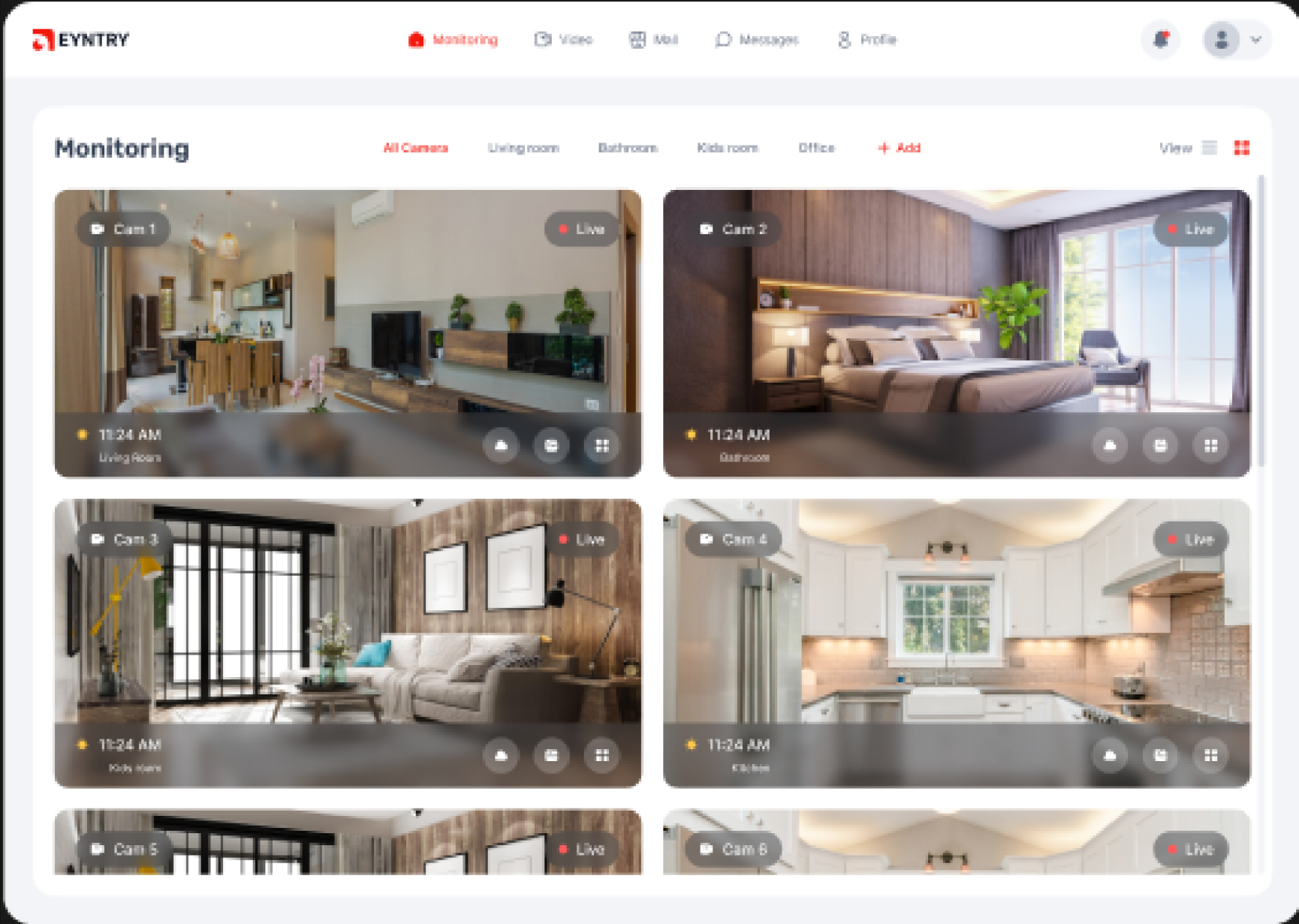
Stettings page
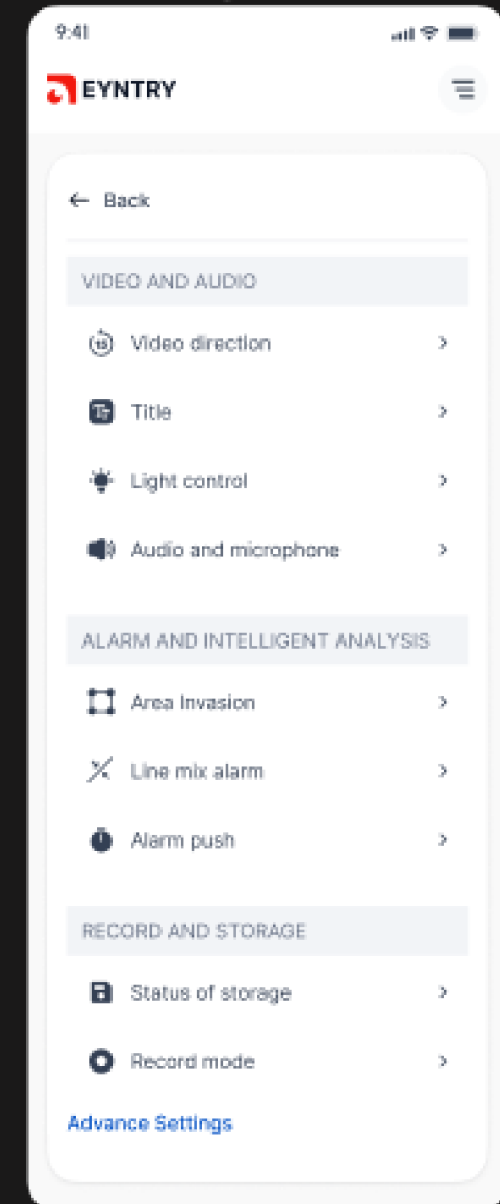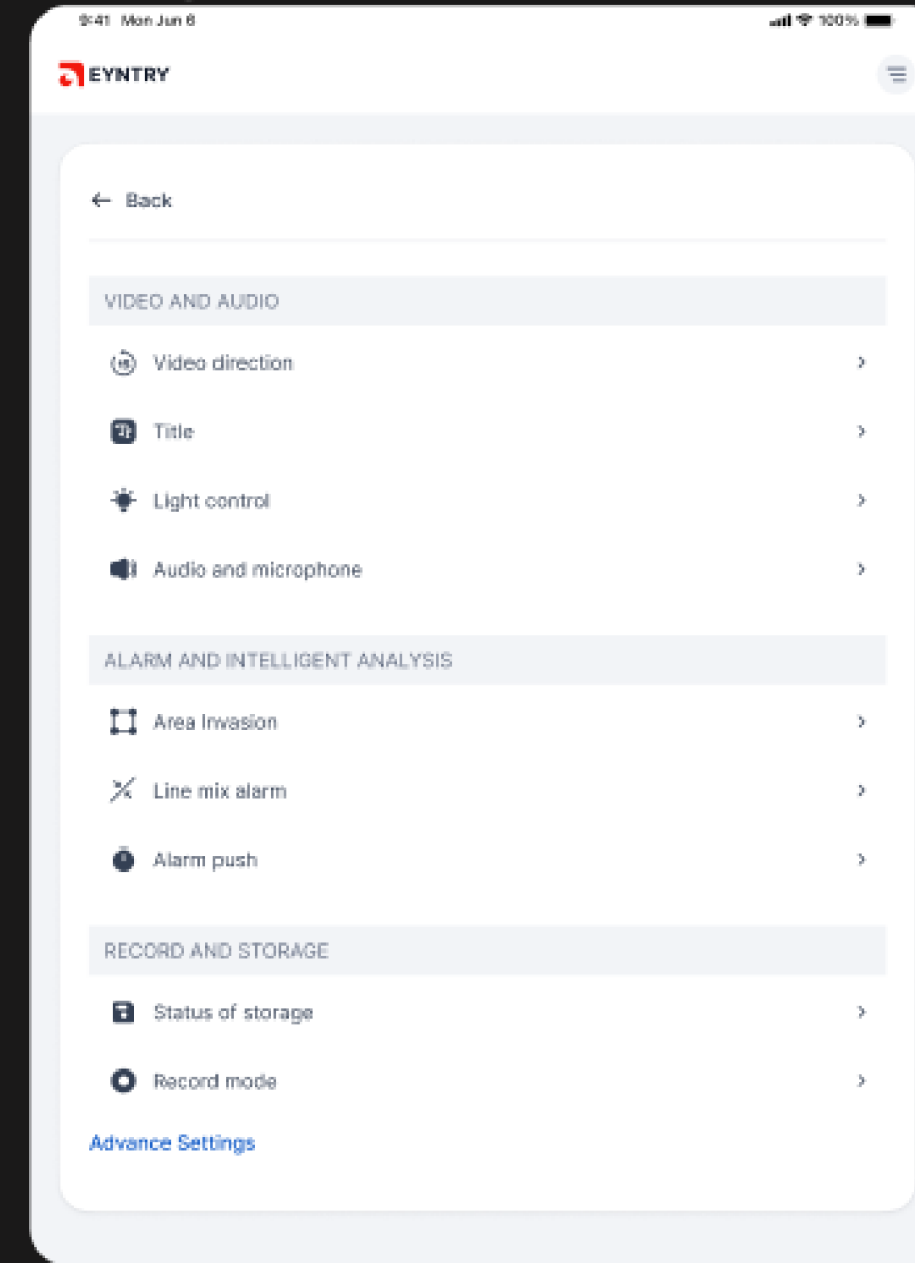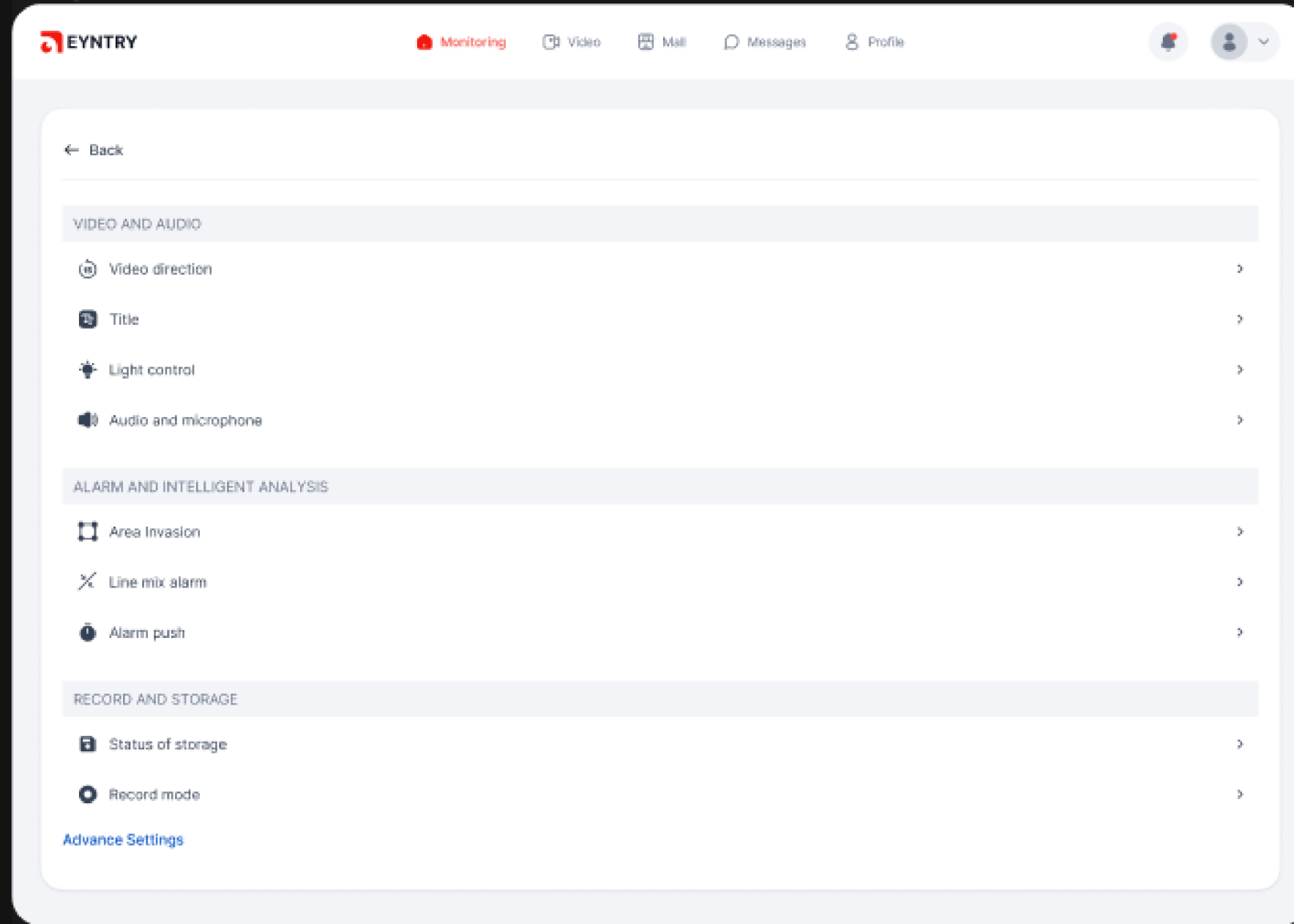
Creating Rule - Area Trigger

Creating Rule - Line trigger

Creating Rule - Action setup
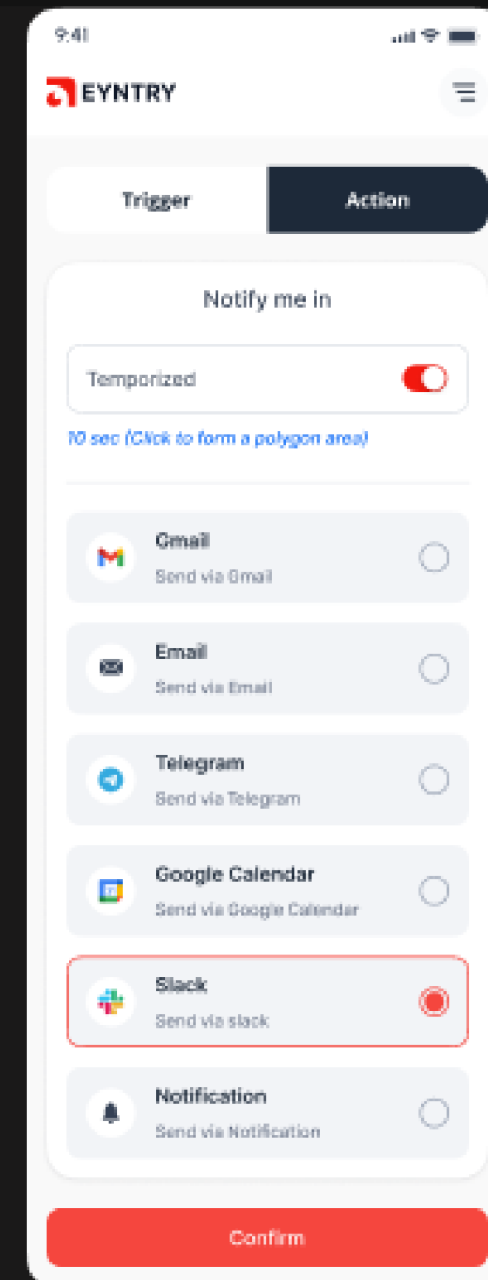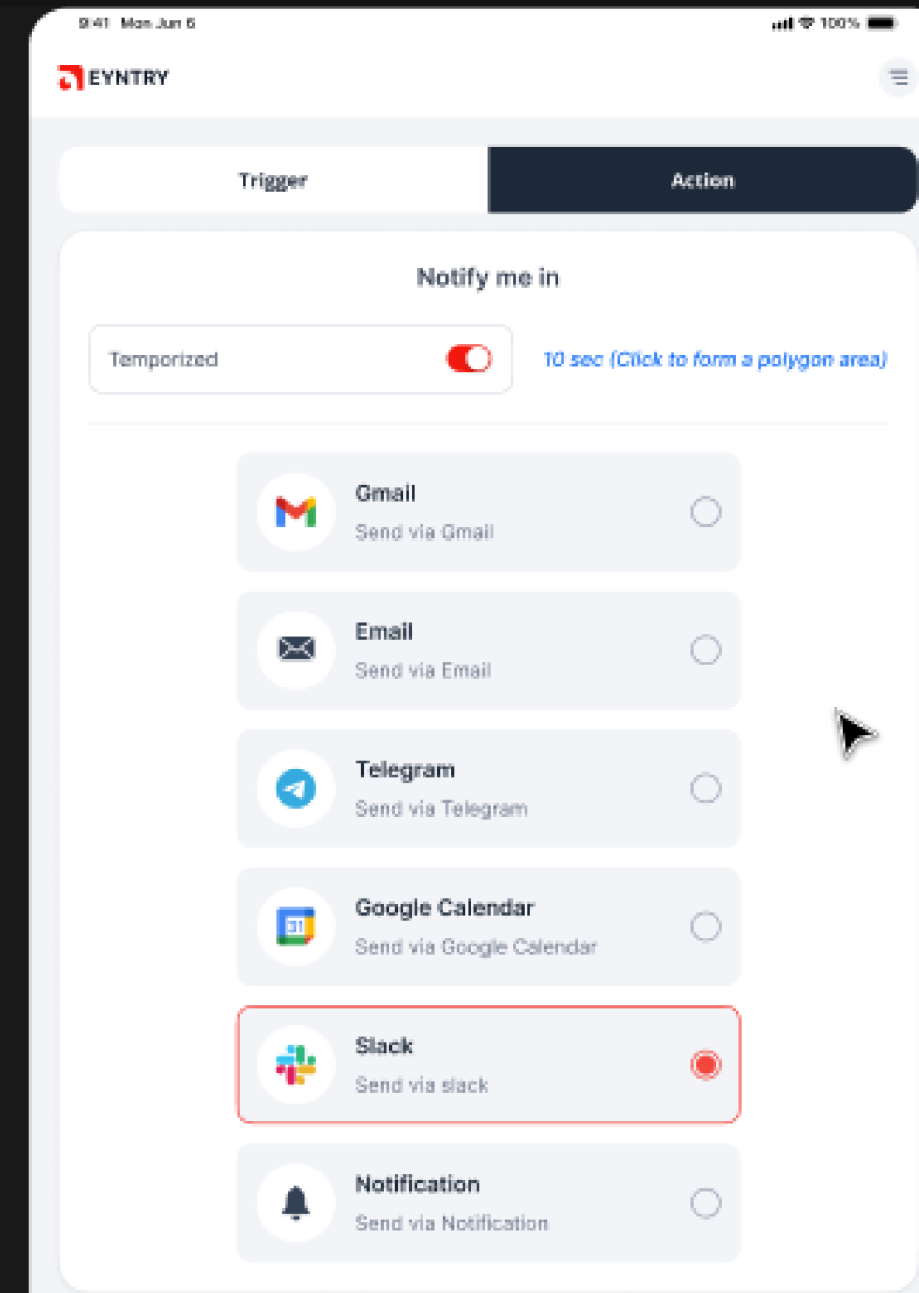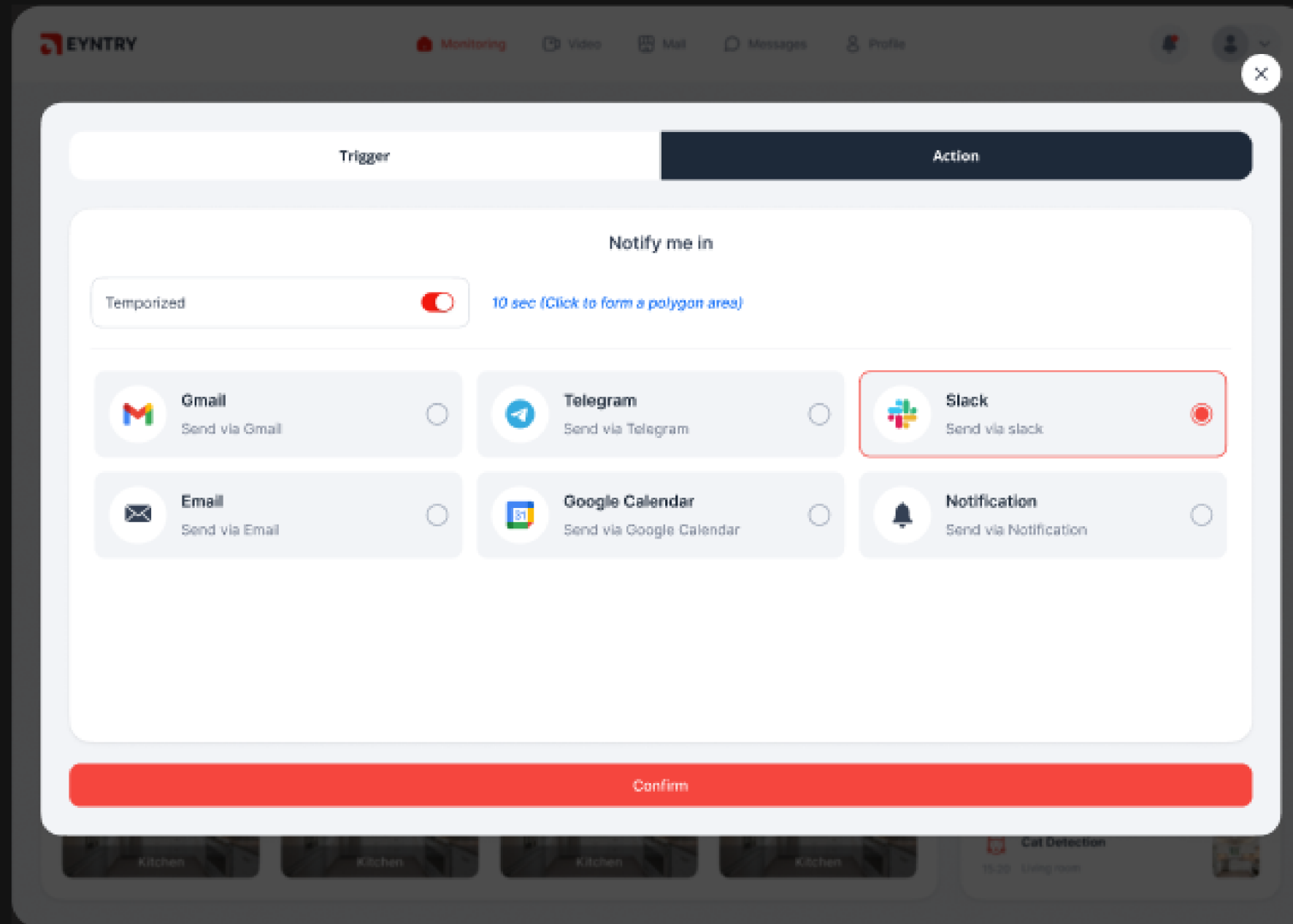
EYNTRY GOAL

- Reduce installation times and costs
- Increasing the functionality of a sensor that has been limited to date (prap, photocells, loop detector) therefore covering multiple cases

What we need

- Develop Software for the logic and for the UI/UX
- Software for logic: which checks whether the rules are being followed and interacts with the outside via relay/API
- User interface: meaning the webapp for camera management and rule management
- Designing the product from a product design perspective.
  - There are currently no physical limits to be met