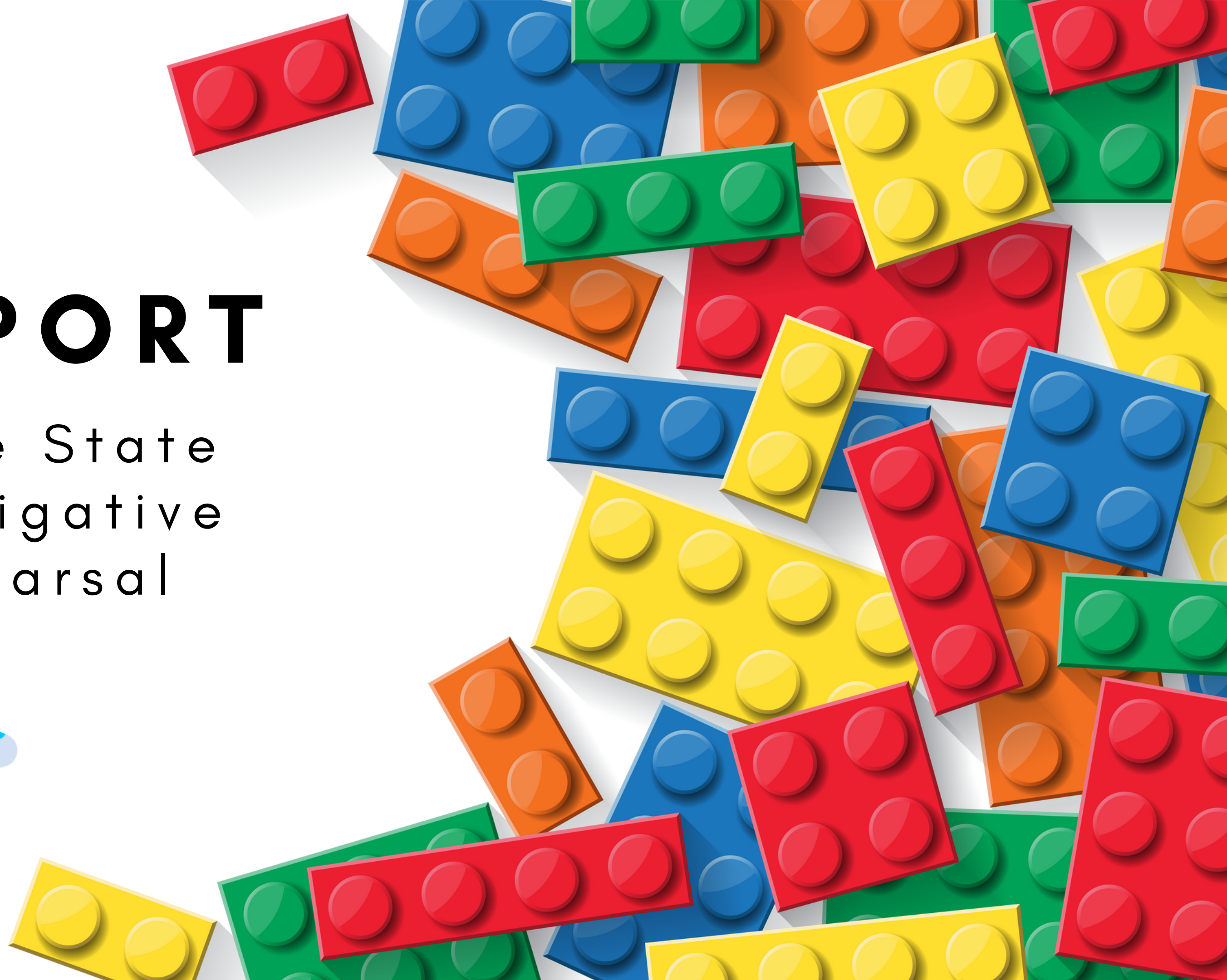
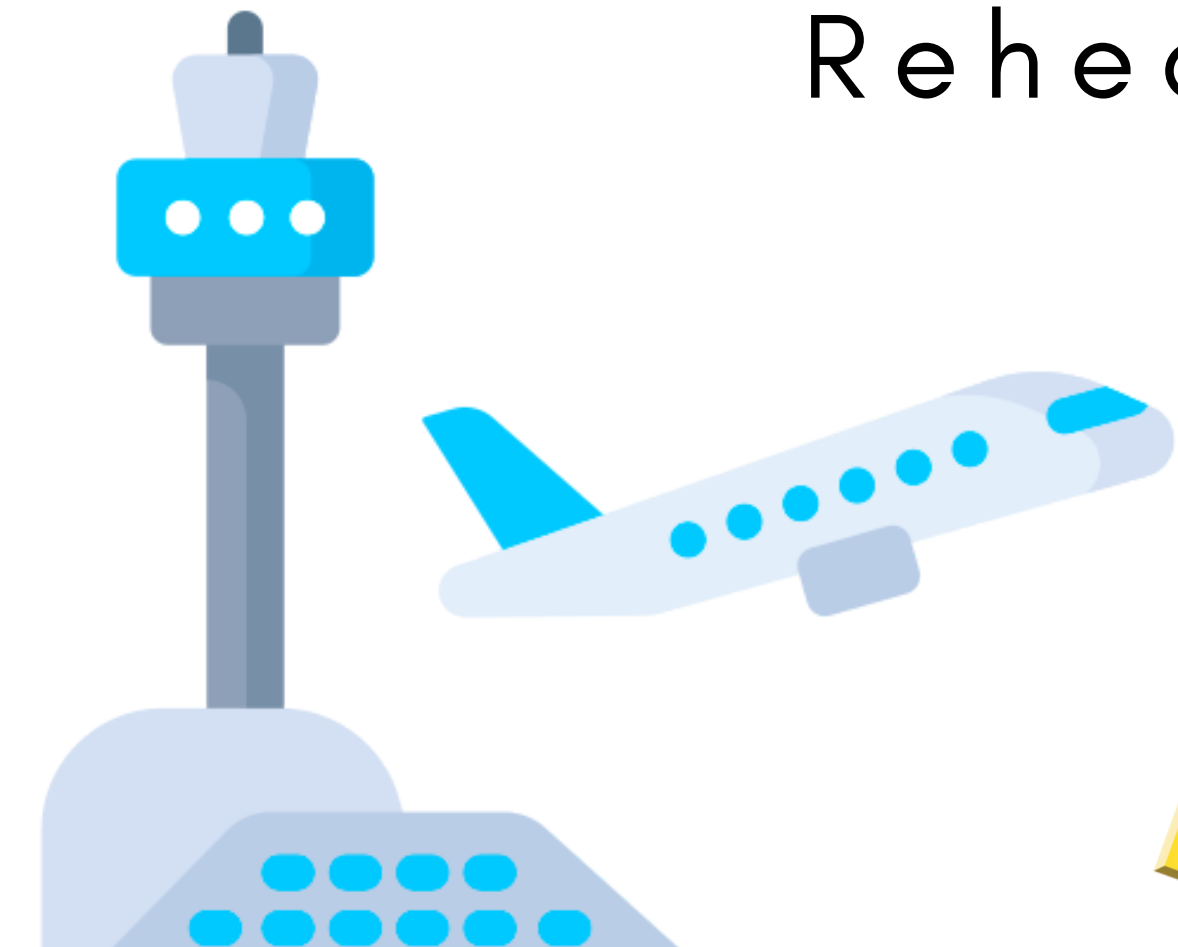


AIRPORT

Future State
Investigative
Rehearsal



FUTURE STATE AIRPORT

Process

Directed by Prof. Ricardo Martins
SCAD Service Design Prototyping: Testing Service Solutions



PARKING

Yushan Chen
Fan Yin
Manxi Zhu
Bingqing Li
Lu Zhang



CHECK-IN

Wendan Gao
Priyanka Kalaria
Heidi Chang
Siyun Lu
Chongyuan Yin



SECURITY

Audrey Keim
Chloe Lakloufi
Geni Lopez
Maya Lucas
Virginia Montero



GATES

Makenna Leese
Andrew Schafer
Ericka Mardis
Grace Woodbery
Olivia Yang



PARKING LOT

Yushan Chen—Fan Yin—Manxi Zhu—Bingqing Li—Lu Zhang

PARKING LOT TEAM



YUSAN CHEN

Service Design M.F.A.



FAN YIN

Service Design M.F.A.



MANXI ZHU

Service Design M.F.A.



BINGQING LI

Service Design B.F.A.



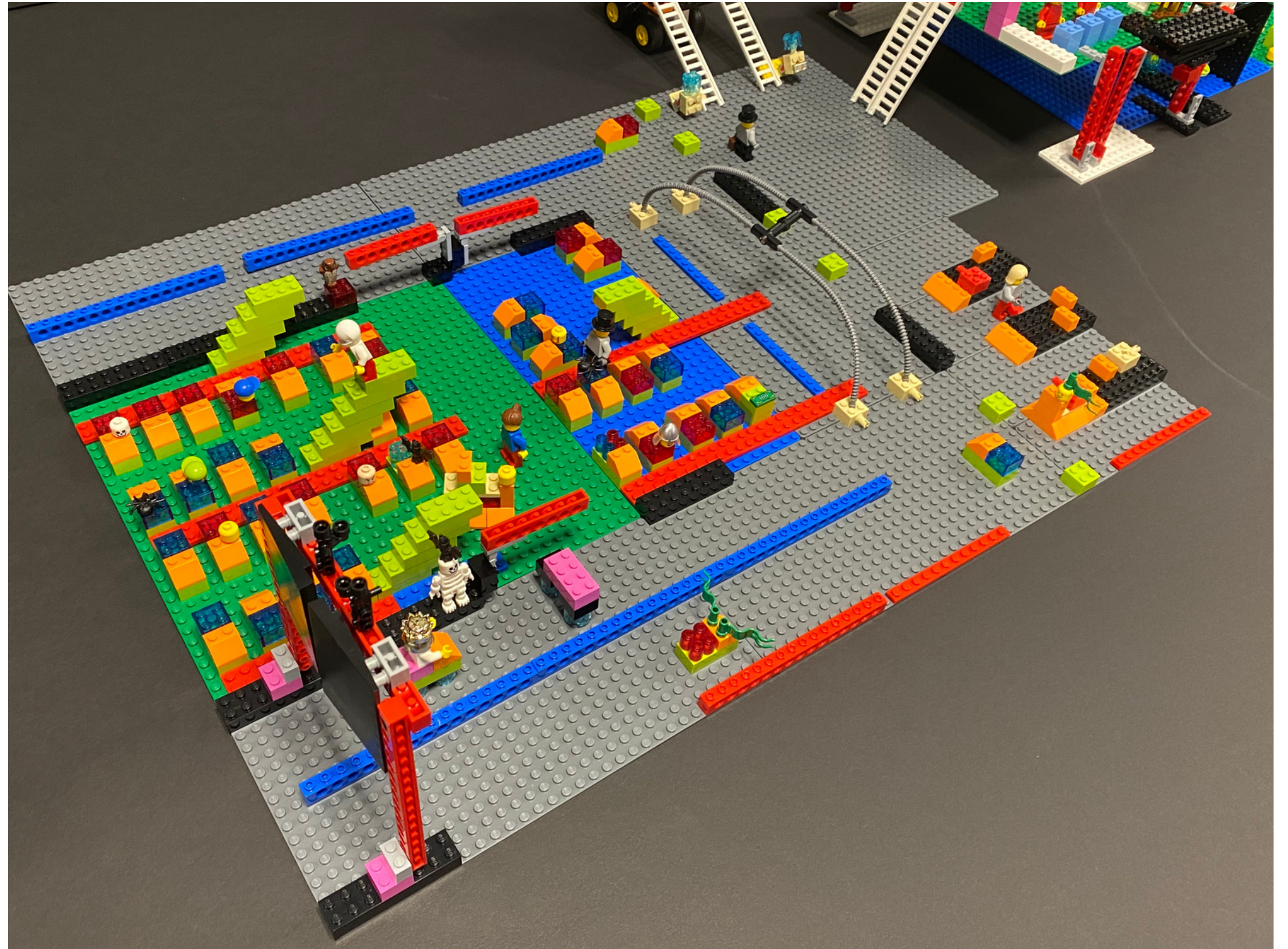
LU ZHANG

Service Design M.F.A.

OVERVIEW

The airport parking lot consists of a short-term parking lot and a long-term parking lot. Inner traffic lanes are connected to both parking lots.

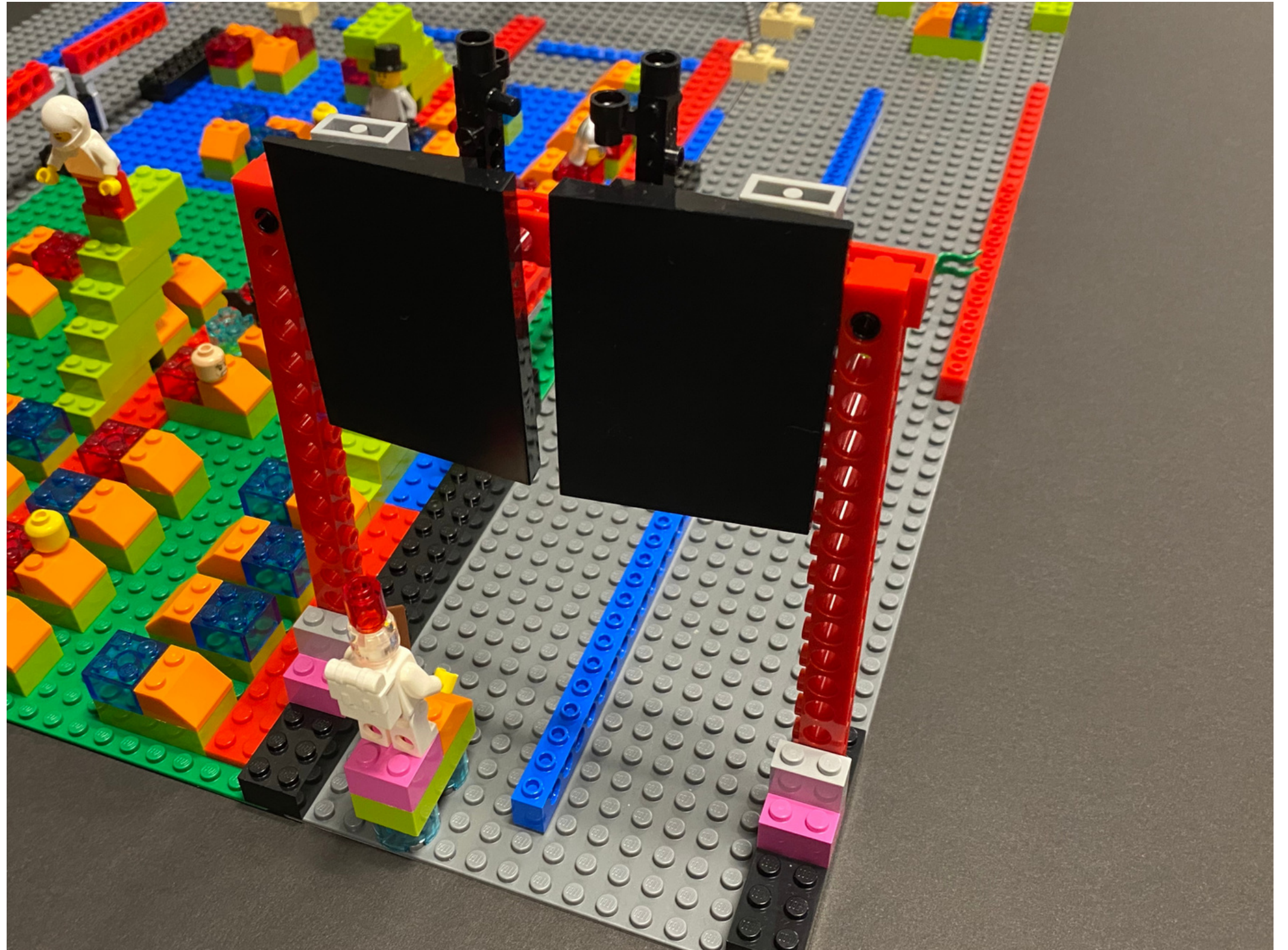
Parking Lot Team



ROAD SIGNS

The passenger follows the road sign on the left and drives along the inner lane, where they will be able to reach both parking lots.

Parking Lot Team



ROBOT LUGGAGE CARRIER

Parking Lot Team

At the entrance to the long-term parking lot, the passenger pushes the button of the reception machine, where they get a parking ticket.

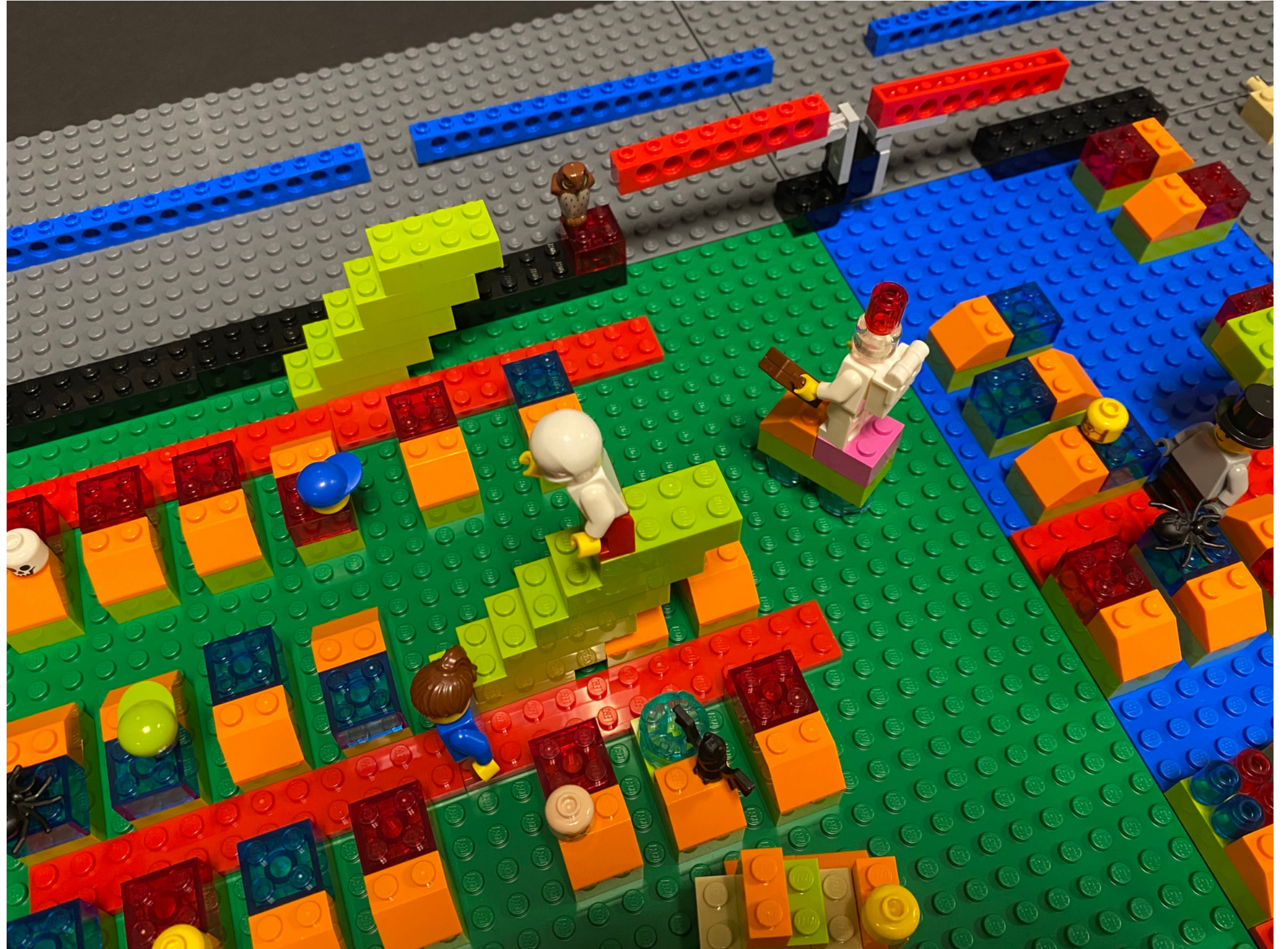
They are also allowed to select whether they would like to check in as a premium passenger or a normal one. The passenger selects the option for premium and the system summons a robot luggage carrier for them.



PARKING SPACE ASSIGNMENT

Parking Lot Team

According to the parking space number assigned by the reception machine, the passenger finds the parking spot while the robot luggage machine heads over to them.



ROBOT-TO-CAR

While the passenger parks their car, the robot luggage carrier approaches the rear end of the car, getting ready to receive the luggage.

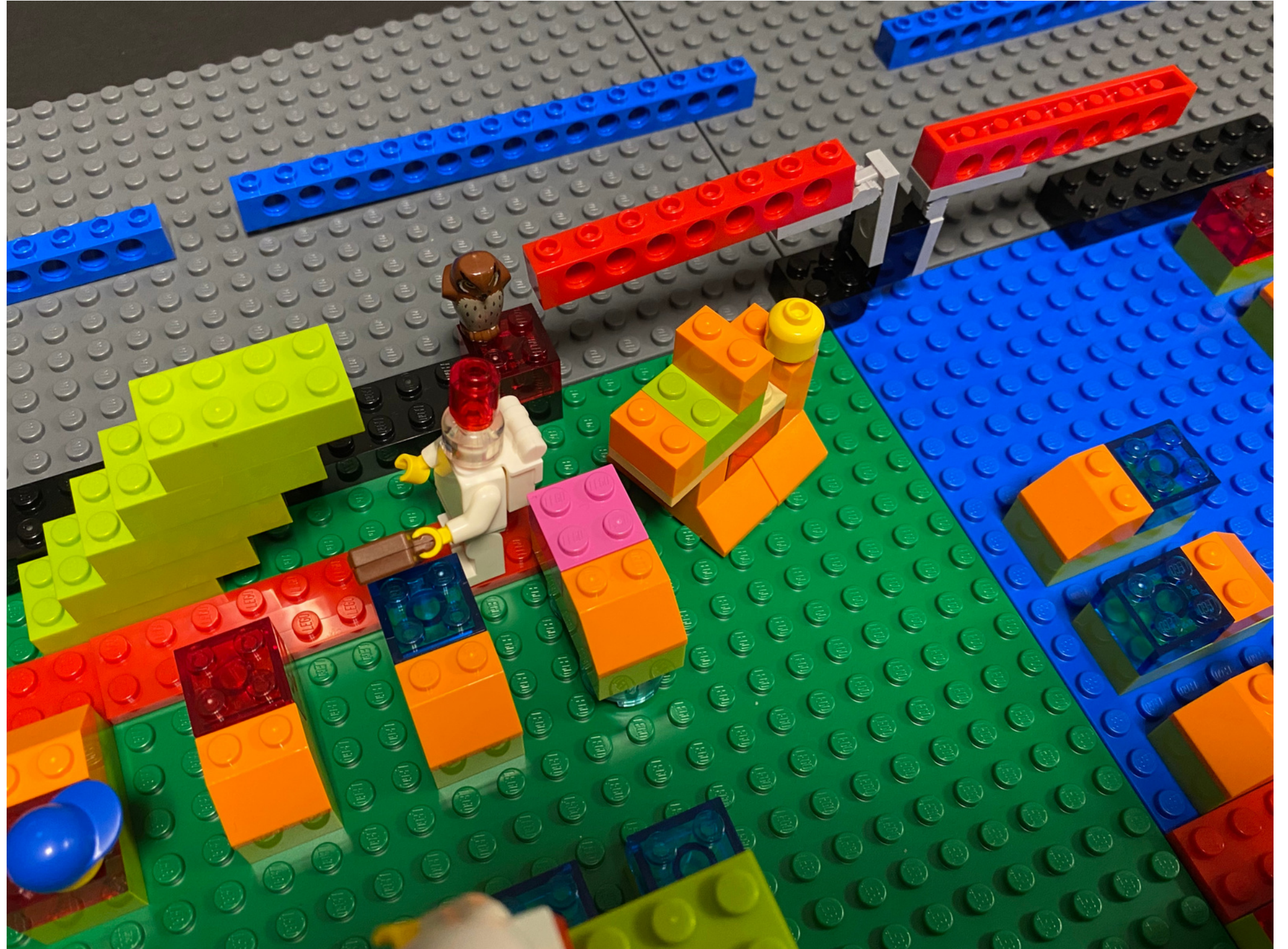
Parking Lot Team



LUGGAGE LOADING & FAST CHECK-IN

Parking Lot Team

The robot luggage carrier raises a platform to the level of the back trunk to load all check-in luggage. Meanwhile, the passenger is able to scan their documents on the robot scanner window for fast check-in.

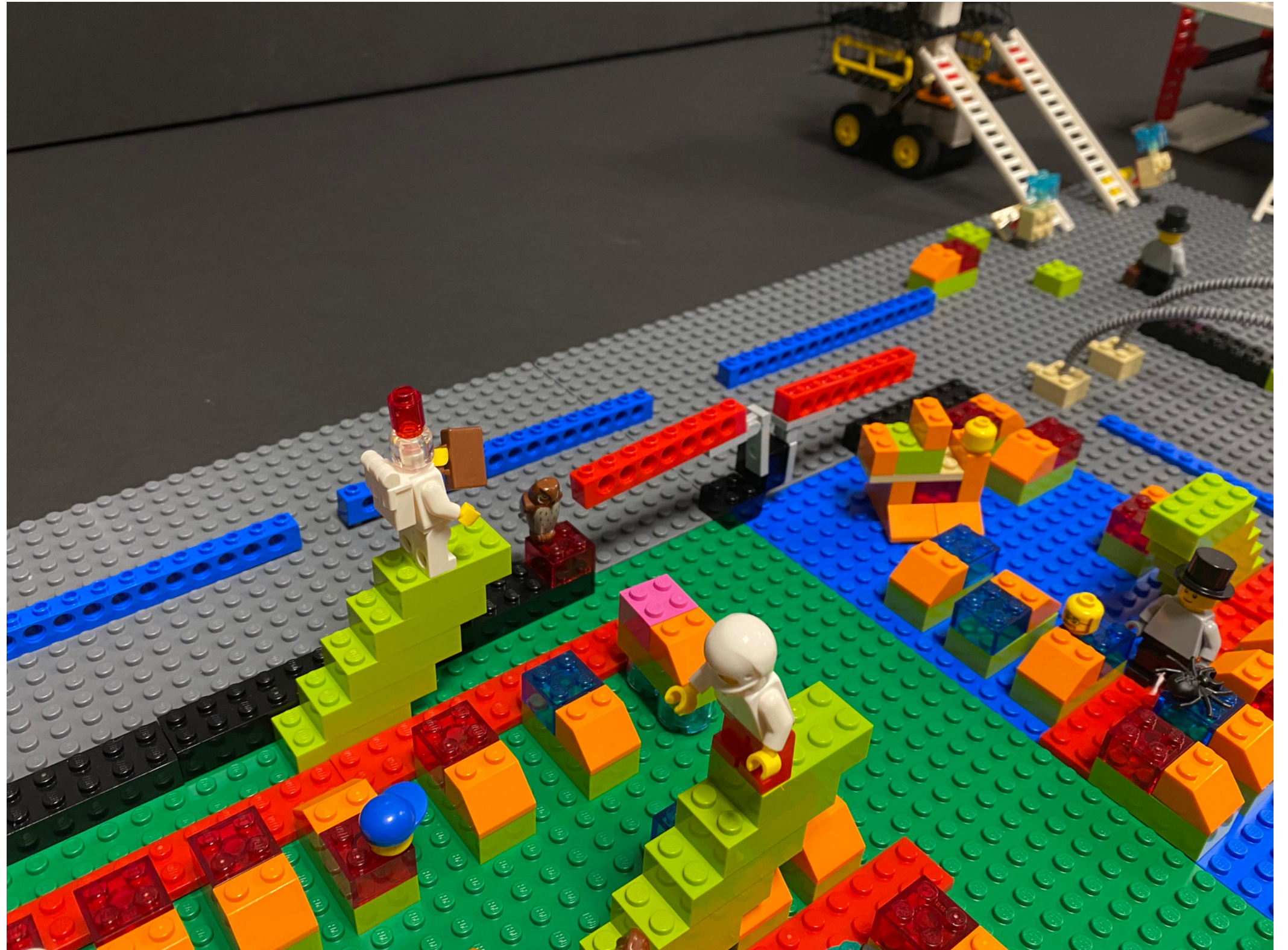


PASSENGER WALKWAY

The passenger goes upstairs to take the walking tunnel while the robot luggage carrier proceeds along the designated path through the parking lot toward the terminal.

Meanwhile, passengers who select normal check-in plan walks toward the check-in area with their luggages.

Parking Lot Team



AUTO LUGGAGE TRANSPORTING

Parking Lot Team

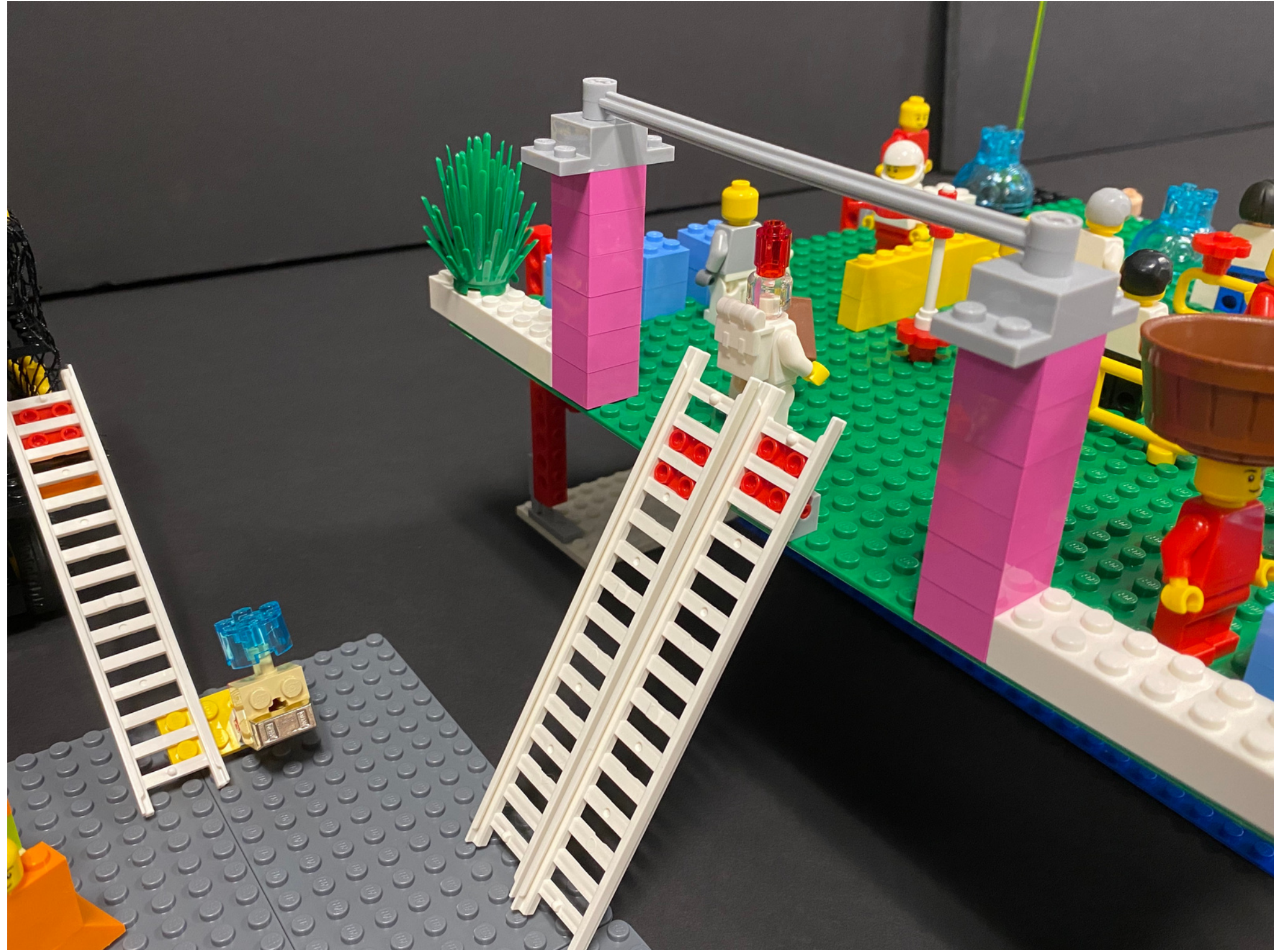
The robot luggage carrier takes the luggages across the drive way and into the terminal.



EXPRESS PATH

The premium passenger enters the non-check-in express path without having to worry about their luggage at all.

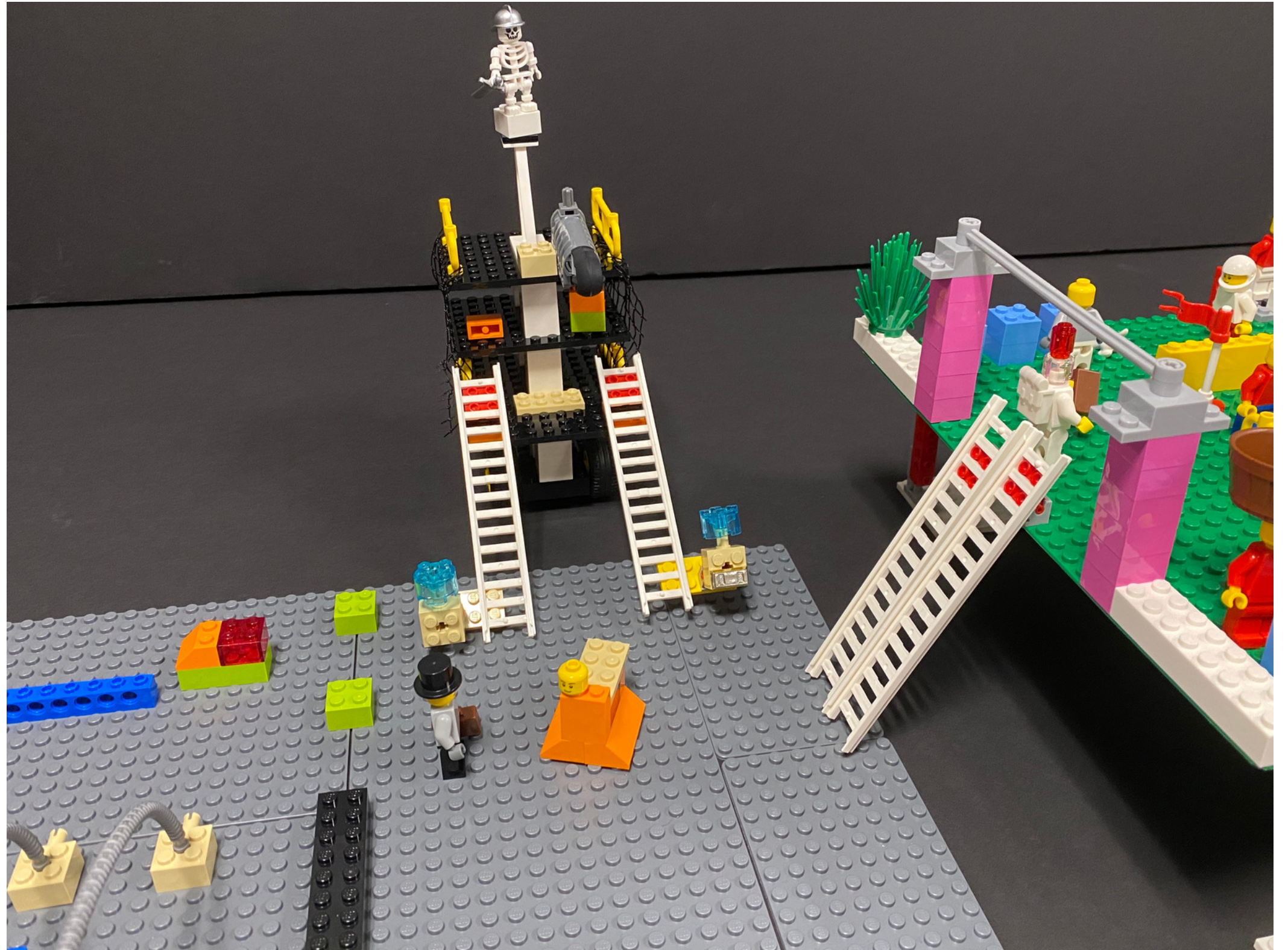
Parking Lot Team



LUGGAGE MACHINE

The robot luggage carrier reaches the Luggage Machine for Premier travelers which collects the luggage.

Parking Lot Team





CHECK-IN

Chongyuan Yin—Heidi Chang—Priyanka Kalaria—Siyun Lu—Wendan Gao

CHECK-IN TEAM



SIYUN LU

Service Design M.F.A



CHONGYUAN YIN

Service Design M.F.A



HEIDI CHANG

Service Design M.A



WENDAN GUO

Service Design M.F.A



PRIYANKA KALARIA

Service Design M.A

LUGGAGE CAR

Check-In Team

Premium passenger

To avoid the traffic in the check-in area, the premium passenger can print their boarding passes and check in his luggage right out of their drop-off place; thus, he can head straight to the security screening.



ENTER CHECK-IN LOBBY

Premium passenger

Leave the parking lot and head to the check-in lobby

Check-In Team



ENTER SECURITY SCREENING

Check-In Team

Premium passenger

The premium customer has a fast-pass elevator so he can directly go to the security area and does not need to join the crowd in the check-in area.



ARRIVE SECURITY SCREENING

Check-In Team

Premium passenger

The premium customer arrives at the security area through a fast-pass elevator.



ENTER CHECK-IN LOBBY

Normal passenger

The passenger takes the escalator to the check-in area.

Check-In Team

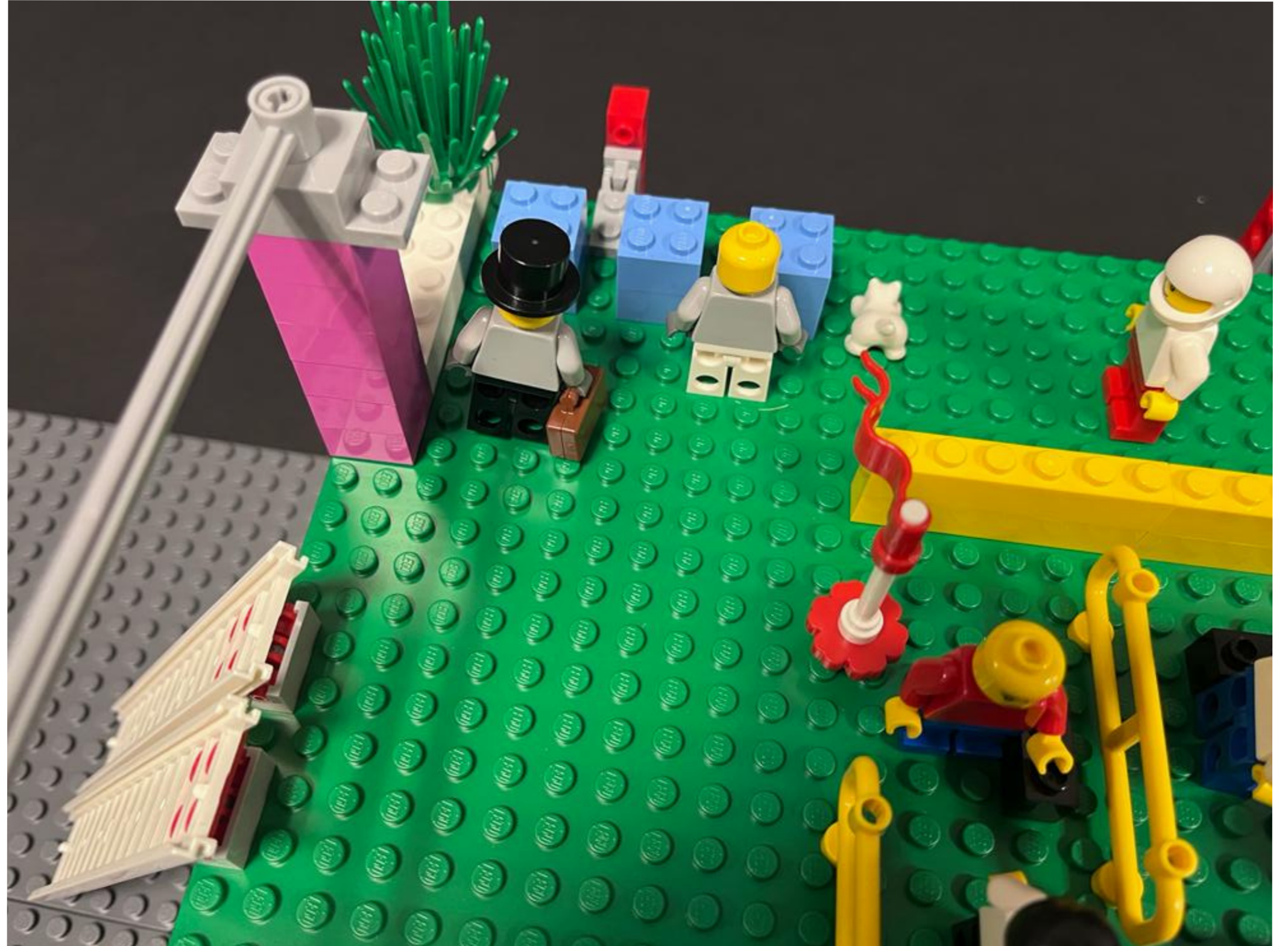


PRINTING TICKETS

Check-In Team

Normal passenger

The passenger with only carry-on luggage can check in from the machines in the front lobby. Afterward, he can go directly to the security screening through the side aisle.

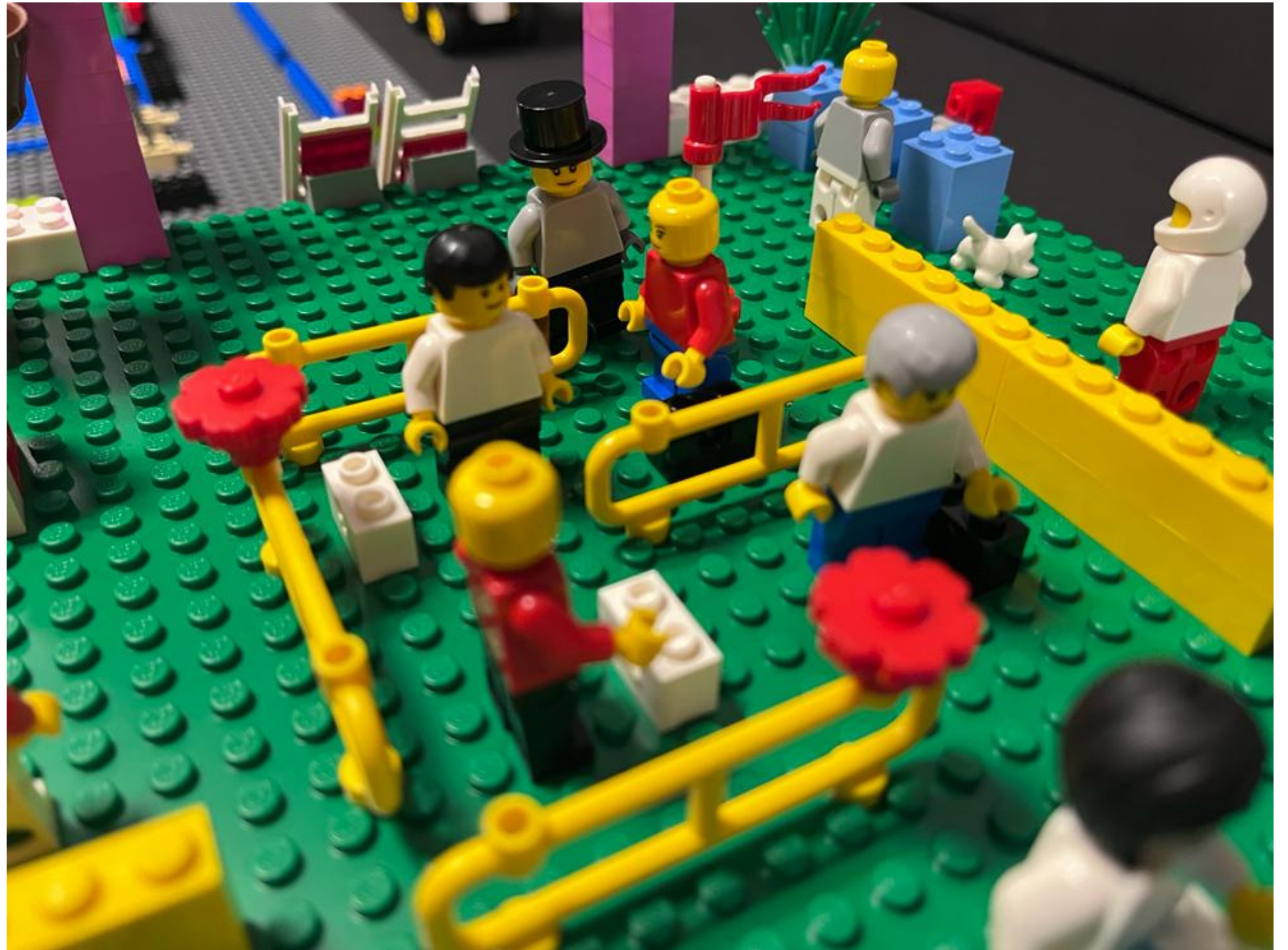


WAITING IN LINE

Check-In Team

Normal passenger

The passengers with check-in luggage waits in line for check-in luggage service.



CHECK-IN

Check-In Team

Normal passenger

The passenger puts the check-in luggage in a machine, which scans everything inside to prevent any prohibited items or the luggage being overweight. The machine prints the boarding pass if the luggage passes the screening.



TRANSPORT LUGGAGE

Normal passenger

The machine transports luggage down via the tray to the right conveyor.

Check-In Team



REARRANGED LUGGAGE STATION

Check-In Team

Normal passenger

The passenger who's luggage don't pass the screening at the luggage-scanned machine needs to go to the rearranged luggage station on the side of the check-in area. Once he gets the approval, he also gets the boarding pass and proceed. He doesn't need to return to the waiting line to check in again.



LEAVE CHECK-IN AREA

Normal passenger

The passenger is good to go to the security screening once he gets the boarding pass.

Check-In Team





SECURITY SCREENING—TSA

Audrey Keim—Chloe Lakloufi—Geni Lopez—Maya Lucas—Virginia Montero

SOLO VS. GROUP LINES

The passenger arrives at security. He sees that there are two lines clearly labeled by signs and monitors, one for individual travelers and group travelers.

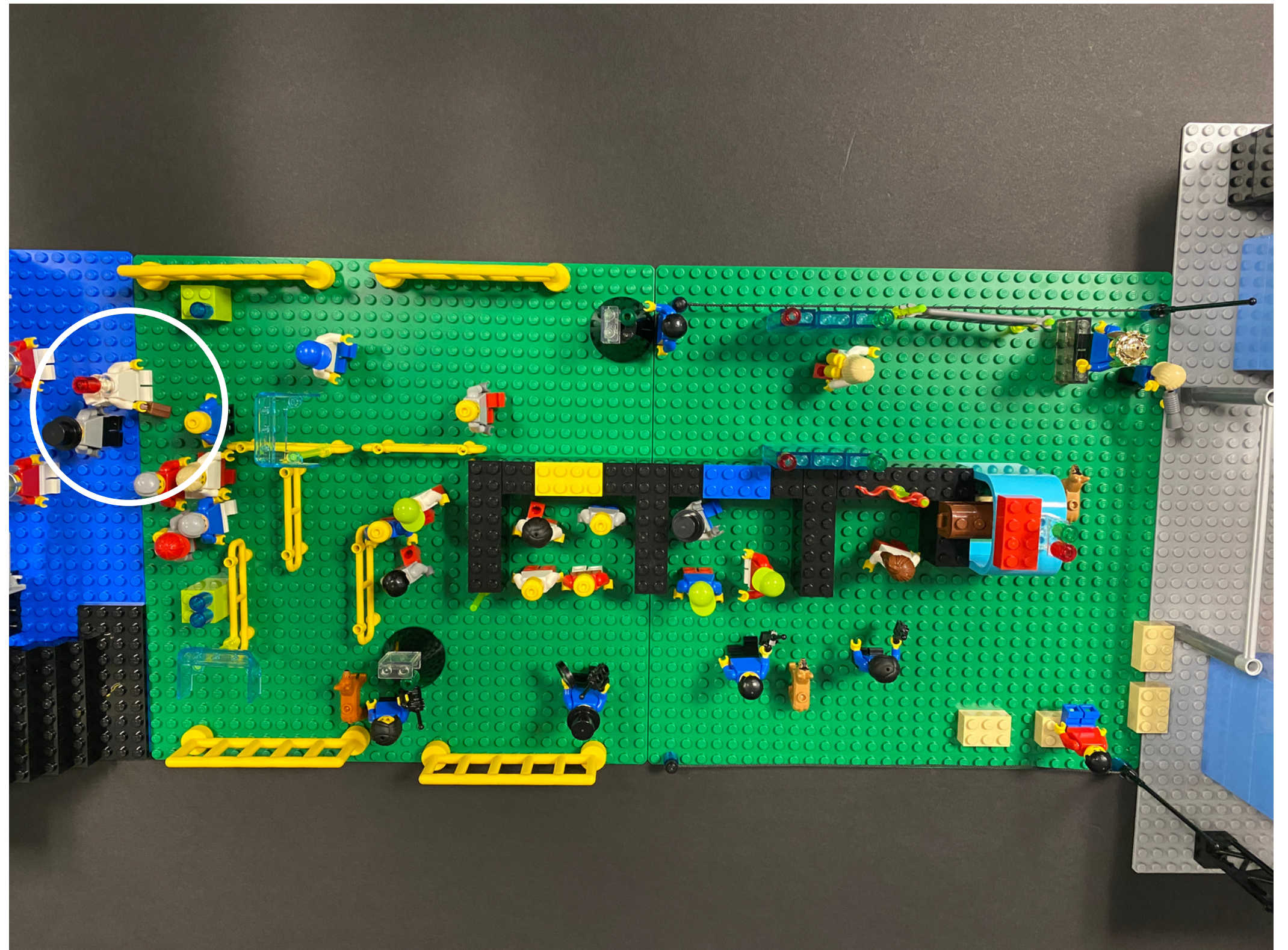
SECURITY SCREENING —TSA



SOLO VS. GROUP LINES

Here, the choice of two paths can be seen clearly.

SECURITY SCREENING —TSA



CLEAR SIGNAGE

Advanced 360 monitors display necessary information on what each line means, as well as what is and is not allowed through security.

The same regulations apply to every airport, and a mobile alert with clear regulations is sent out 48 hours before boarding.

SECURITY SCREENING —TSA



SOLO TRAVELER TSA LINE

Because the passenger is traveling alone, he chooses the individual line.

SECURITY SCREENING —TSA



PAPERLESS ID VERIFICATION

SECURITY SCREENING —TSA

A facial recognition scanner at the ID kiosk takes a picture and verifies his identity. A background check is displayed on the TSA agent's screen for final verification before proceeding.

There is no need to take out any physical forms of identification.

This is the same for both lines.



WALK-THRU BODY SCANS

The passenger goes through the group scanner with other individual travelers. This scans for any restricted items through luggage and clothes in about 30 seconds.

Alternatively, in the group line, a group traveling together will go into a divided space with a 360 scan to find any restricted items. The group will not be separated through security.

No unpacking or undressing is necessary.

SECURITY SCREENING —TSA



SEAMLESS GATE TRANSITION

The passenger is able to go smoothly go through security without putting anything down.

SECURITY SCREENING —TSA



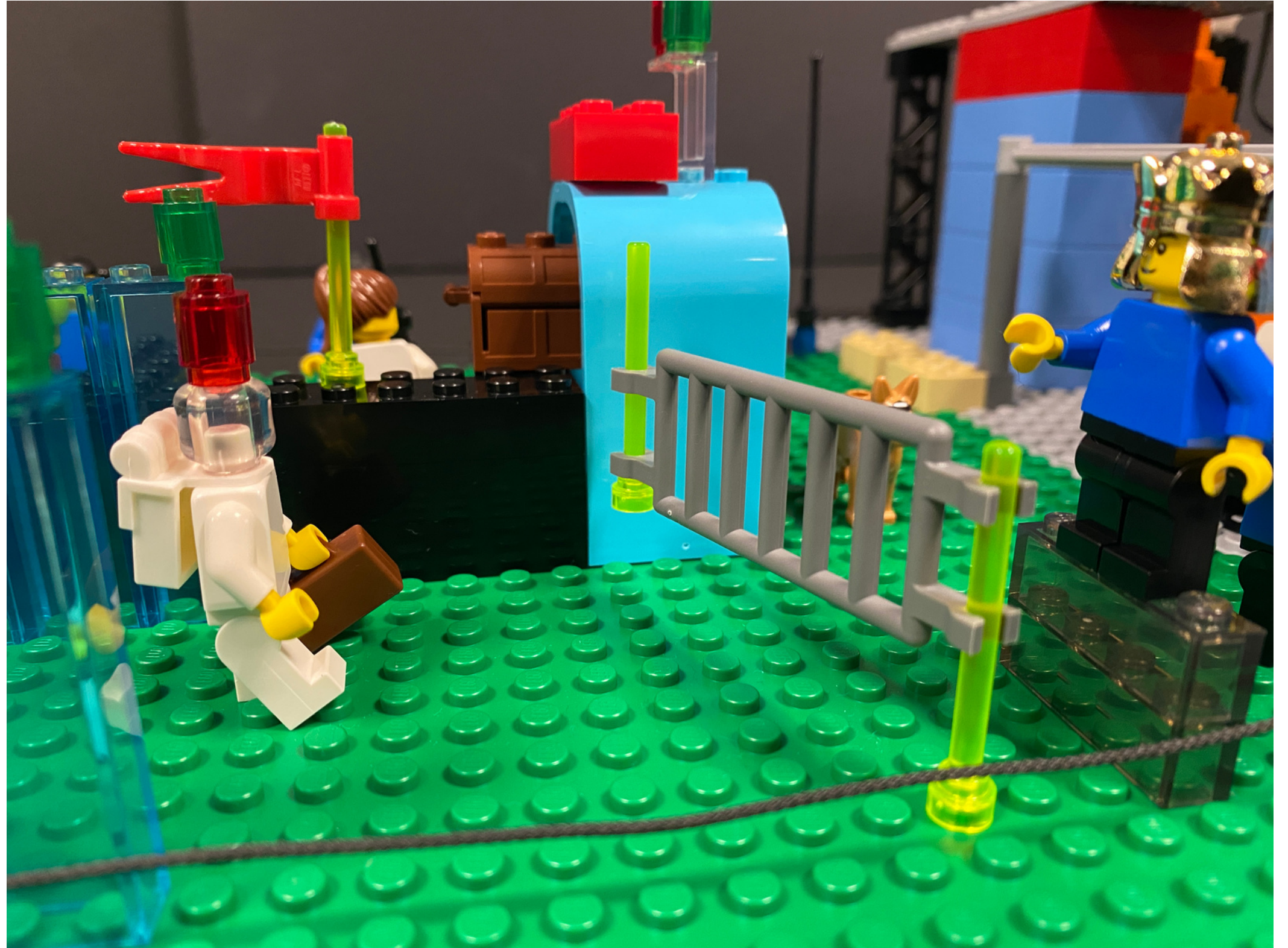
WALK-THRU BODY SCAN

ALTERNATIVE JOURNEY

The group scanner detects that the passenger has a restricted item in his luggage. A barrier automatically detains the passenger until a TSA agent escorts him away.

The other individual passengers in his group are allowed to pass through as soon as he is escorted.

SECURITY SCREENING —TSA

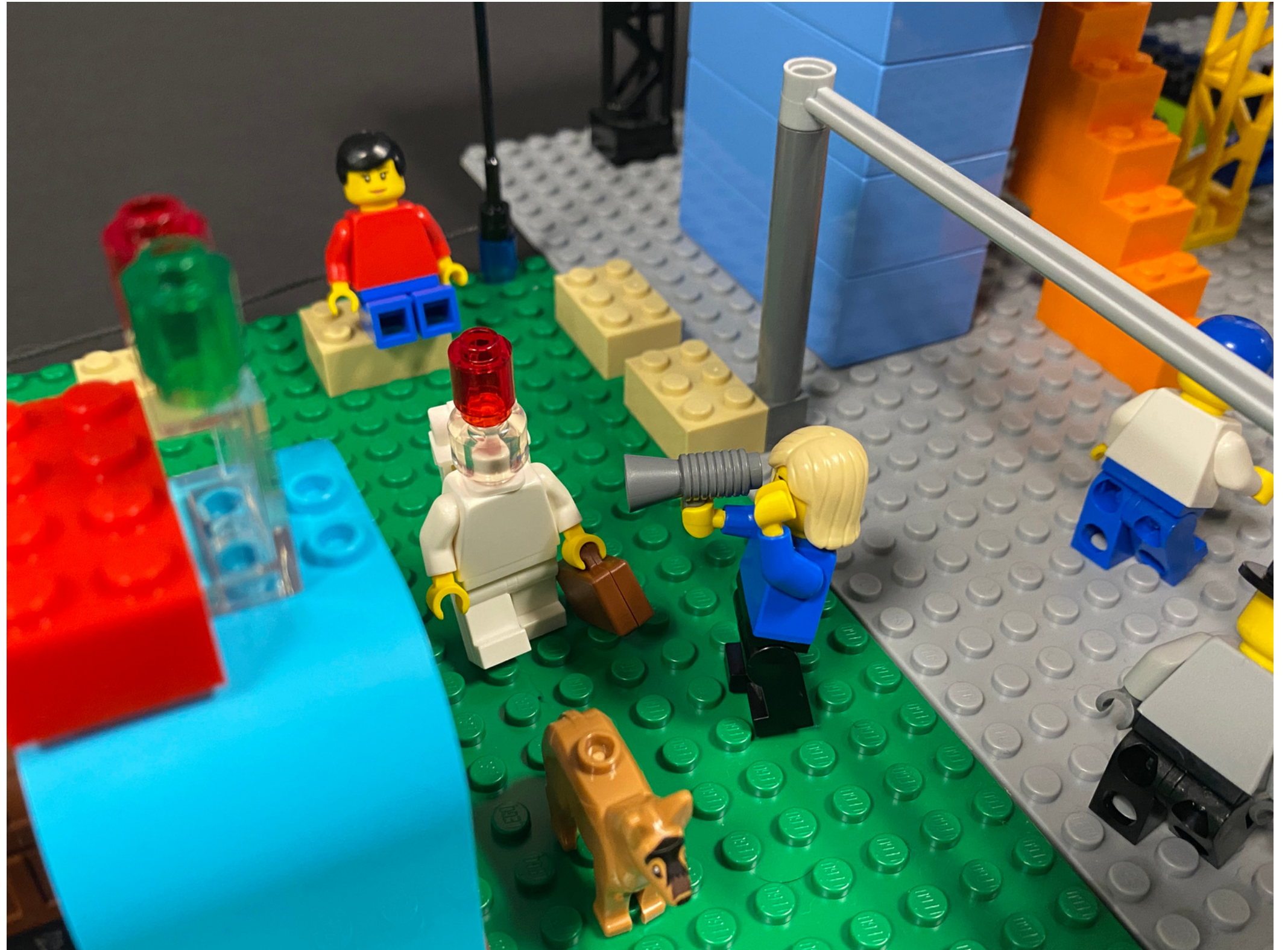


WALK-THRU BODY SCAN

ALTERNATIVE JOURNEY

The TSA agent clearly instructs the flagged passenger to put his luggage in the secondary in-depth scanner, and walk to the flagged scan room.

SECURITY SCREENING —TSA



WALK-THRU BODY SCAN

ALTERNATIVE JOURNEY

In the flagged scan room, a second scan is performed and the restricted item is located and taken away.

This flagged room is used by the group traveler line as well.

SECURITY SCREENING —TSA



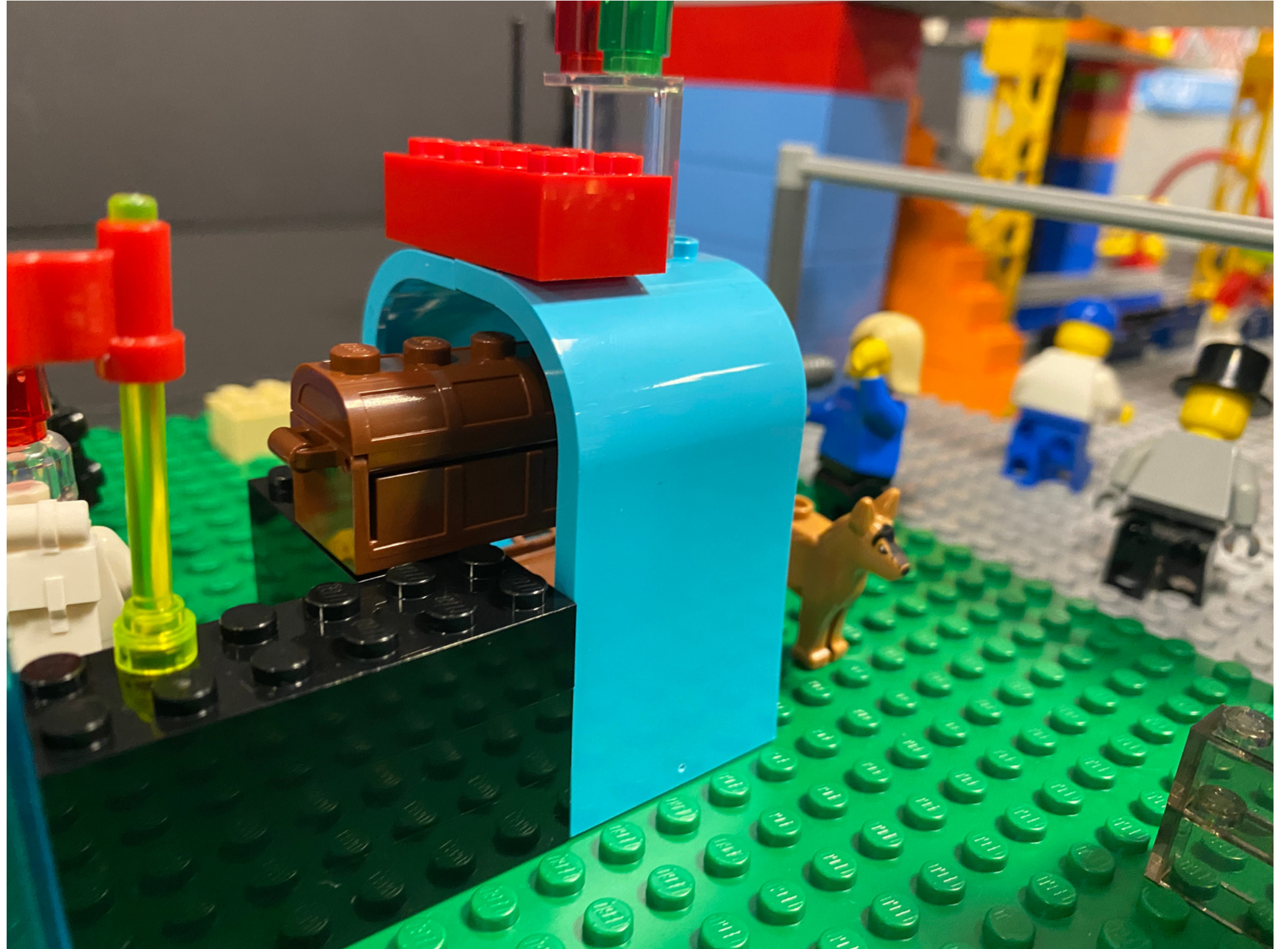
WALK-THRU BODY SCAN

ALTERNATIVE JOURNEY

The flagged passenger's luggage is also scanned in the secondary scanner.

Any re-packing that must be done after the removal of the restricted item is done in the designated re-pack station.

SECURITY SCREENING —TSA



SEAMLESS GATE TRANSITION

ALTERNATIVE JOURNEY

The passenger may calmly go through to the gates after having sufficient time to re-pack his stuff, and not having to make other passengers wait.

SECURITY SCREENING —TSA





GATE AREA

Makenna—Grace—Olivia—Ericka—Andrew

GATES TEAM



MAKENNA LEESE

Service Design B.F.A.
Industrial Design B.F.A



GRACE WOODBERRY

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Industrial Design Minor



OLIVIA YANG

Service Design M.A.



ERICKA MARDIS

Service Design M.A.
Creative Business Leadership M.A.



ANDREW SCHAFER

Service Design B.F.A.
Industrial Design Minor

TERMINAL OVERVIEW

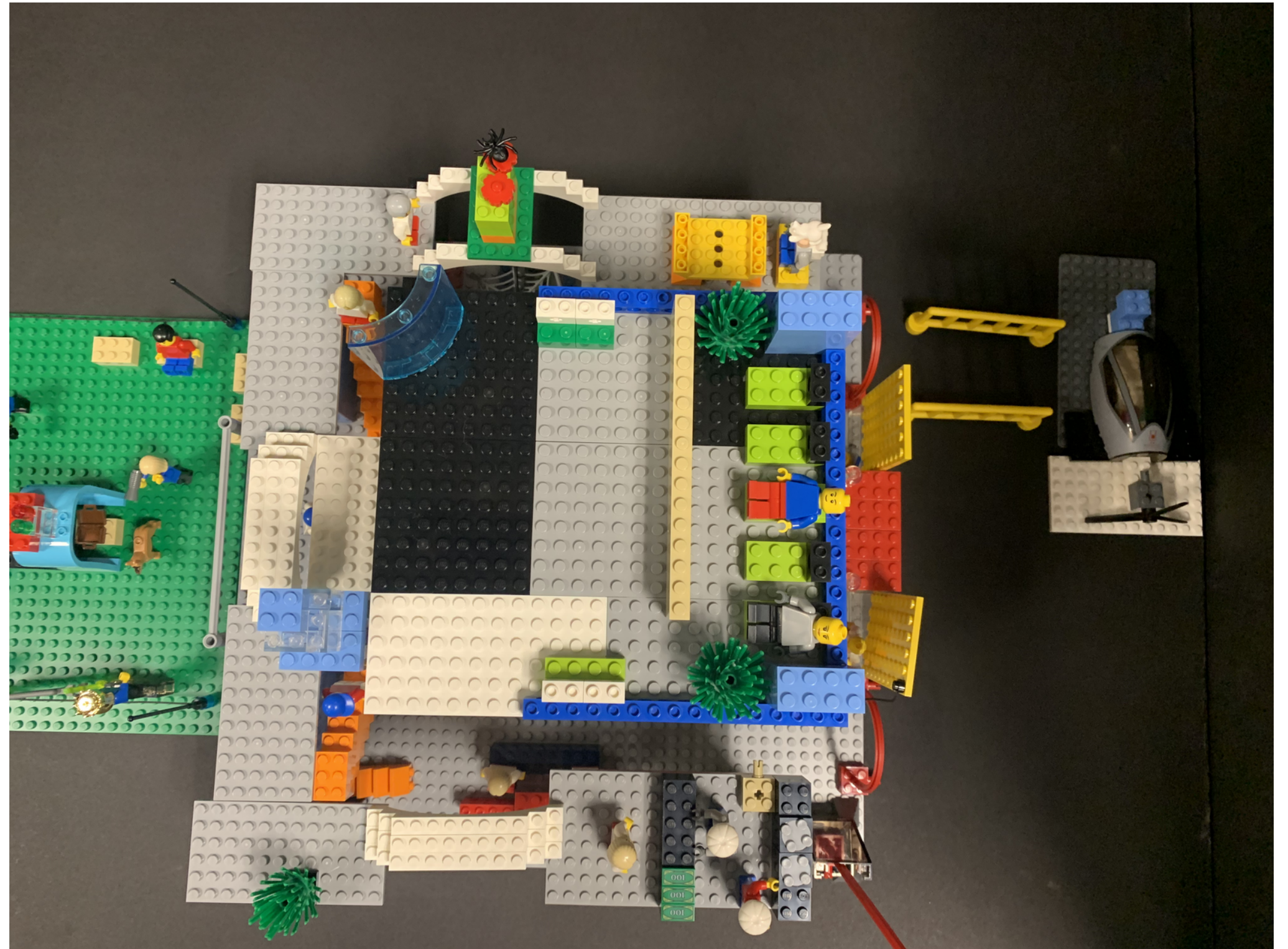
Terminal - Gate

The main terminal consists of 3 floors.

Located throughout the 1st floor are the gates, airline services, and shopping and convenience store amenities. Several food pickup areas are available through a dedicated food ordering app for passengers who are short on time. There are also large bathrooms on the 1st floor.

The 2nd floor consists of restaurants and small consignment shops with plenty of tables and seating.

The 3rd floor has private spaces for passengers who have a longer wait, a layover or canceled/ delayed flight. The private rooms also provide customers with private bathrooms with showers.



1ST FLOOR SHOPPING AND SEATING

Terminal - Gate

Throughout the 1st floor, the passenger has various seating options. Every seat and table has a variety of ports and outlet types to accommodate different chargers.

Passengers can purchase snacks from small convenience stores and relax while they wait for their flight to depart.



CARRY-ON LUGGAGE LOCKERS

Terminal - Gate

After the passenger enters the terminal, easy-to-understand signage leads the passenger to their gate. They then decide to put their carry-on in the locker at the gate.

Passengers have the option to put their carry-on bag in a large luggage locker where it can remain until it is time to board the flight. To access the luggage lockers, passengers enter their flight reservation details, a locker then pops open where the passenger places their items inside and closes the door. This system conveniently notifies passengers on their phones in advance of their flight departing to collect their belongings.



SMART LOCKERS

Terminal - Gate

The passenger then follows signs back to the bathrooms.

If passengers need to store items quickly while using the restroom, they can now place their belongings in smart lockers throughout the first and second floors that are inspired by Amazon lockers.

All passengers have to do is open the airport's app, go to the locker page and get a code that they can use to store their items for a short time. The same code is used to open their locker.



INTEGRATED ANNOUNCEMENTS SYSTEM

Terminal - Gate

After going to the bathroom, the passenger returns to sit near their gate; they now hear and see announcements over speaker and television systems.

Passengers who may be visually or hearing impaired can hear and see announcements from terminal TVs and the passengers' mobile phones. Any passengers listening to music through headphones can still receive audio and visual notifications and verbal announcements on their phones through a dedicated airline app.

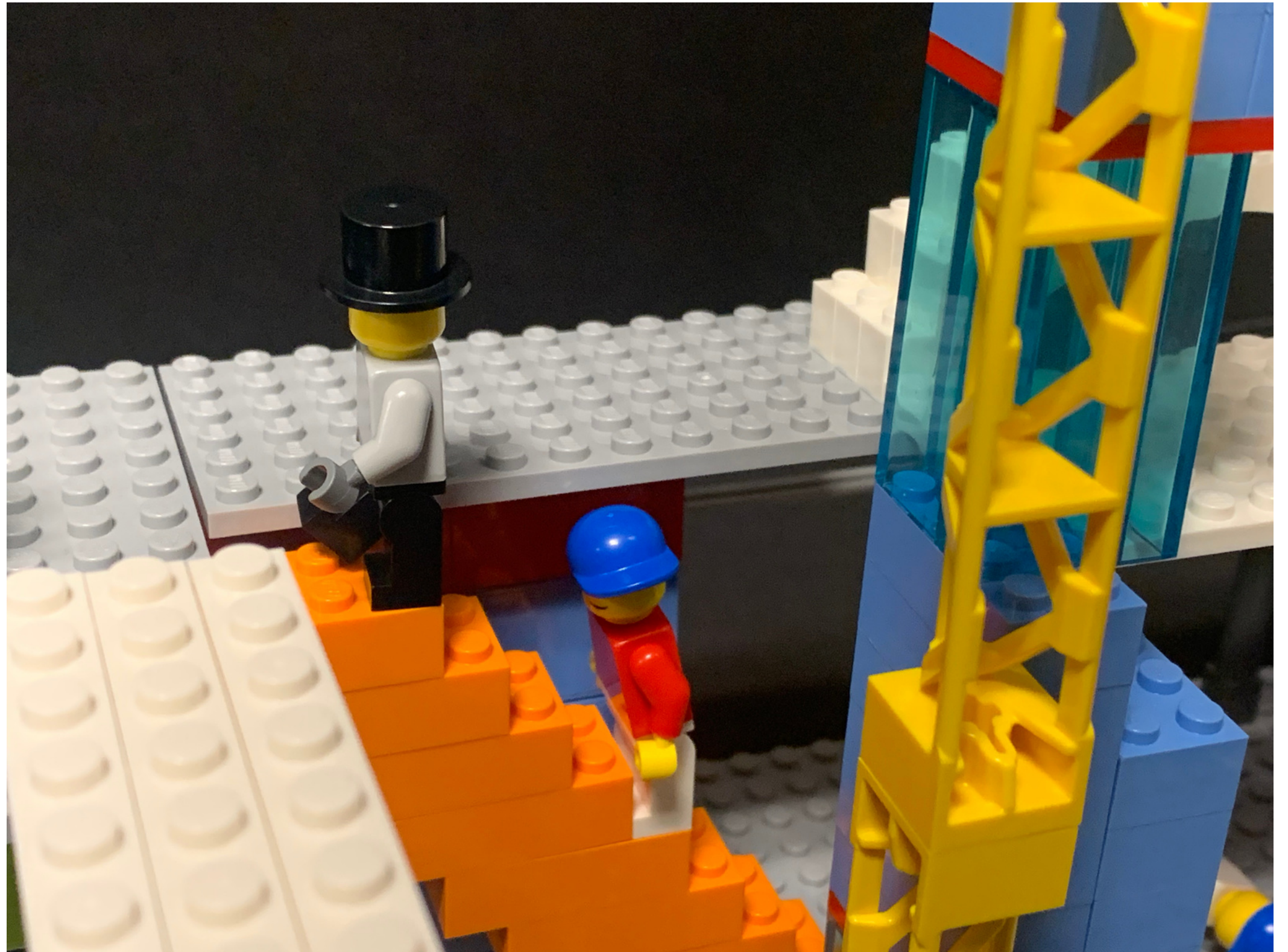


2ND FLOOR AMENITIES

Terminal - Gate

The passenger that has extra time to spare are able to take an escalator or elevator up to the second level to explore a variety of restaurants and small consignment shops.

The second floor has restrooms, seating areas, and an abundance of charging options that are easily accessible to all travelers but are purposely separated from the first-floor airplane gates to reduce crowding around the gates.



RESTAURANTS, SHOPS AND SEATING ON THE 2ND FLOOR

Terminal - Gate

Since the passenger decided to explore the food options on the 2nd floor, they are provided with an abundance of seating arrangements and tables all with their own charging stations.

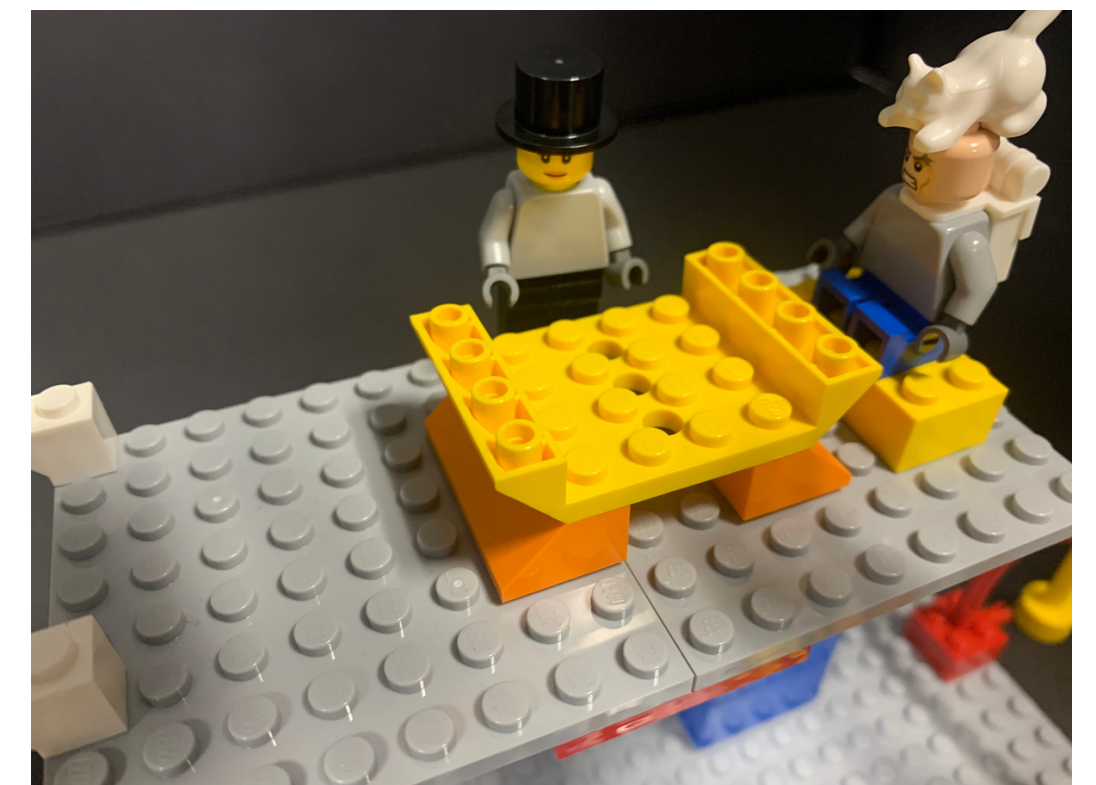
Other passengers who choose to order items to-go from restaurants are able to place orders through a mobile airport app and will receive a notification on their mobile device when the order is available for pick up or they can choose to have food sent through a service elevator which they can conveniently pick up at designated areas on the first and third floors.



Foodservice elevator



Restaurant Ordering



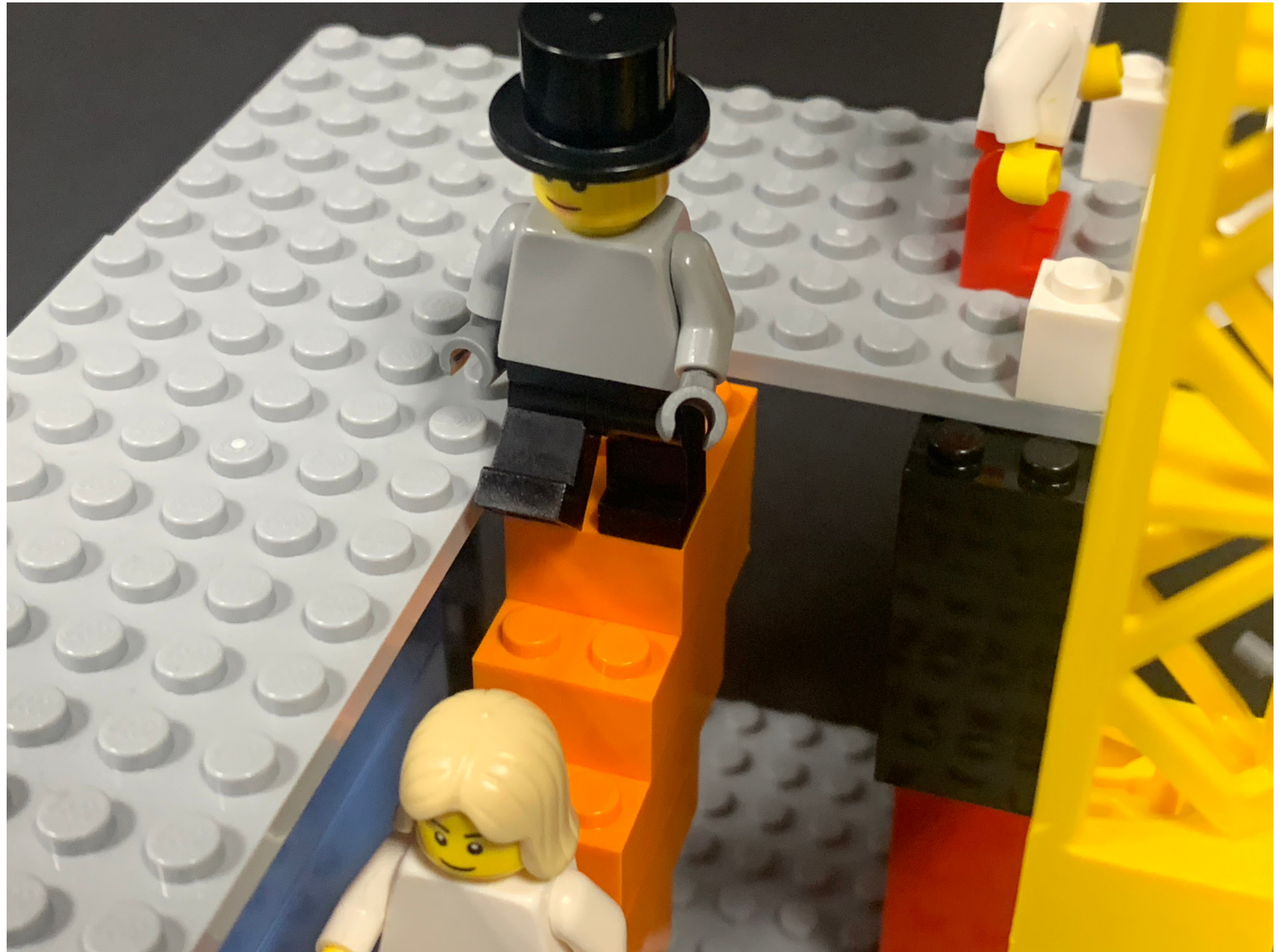
Seating and Charging Station

AIRPORT WIDE ANNOUNCEMENTS & NOTIFICATIONS

Terminal - Gate

While the passenger dines or shops upstairs, the integrated announcement system will ensure they never miss an important notification about their flight.

Before any flight boarding, or in case of a cancellation or delay, audio and video messages will appear on T.V.s and passengers' mobile phones. This feature will give all passengers enough time to pay the bill, get food to go, and head downstairs to the gates.



DELAYED FLIGHT NOTIFICATION

If a passenger has a layover or receives a notification that their flight has been delayed, or canceled; they reserve a spot upstairs in the private rooms.

Additionally, passengers who placed their luggage or other belongings in the luggage or smart lockers will be notified to retrieve their carry-on from the locker, or they can leave it, and it will be automatically transferred to the other gates' locker.

Terminal - Gate



Passenger receiving flight cancelation notification



Elevator to 3rd floor

3RD FLOOR LOUNGE AND PRIVATE ROOMS

Passengers experiencing long layovers, delays, or cancelations are automatically granted entry upstairs to the third level. This level has rest lounges, private rooms, and private bathrooms with showers.

Passengers can reserve their rooms and showers all through the dedicated airport app.

Additionally, all integrated airport notification systems are implemented upstairs across T.V.s, speaker systems, and the passengers' mobile phones to ensure they never miss their flight while getting relaxation.

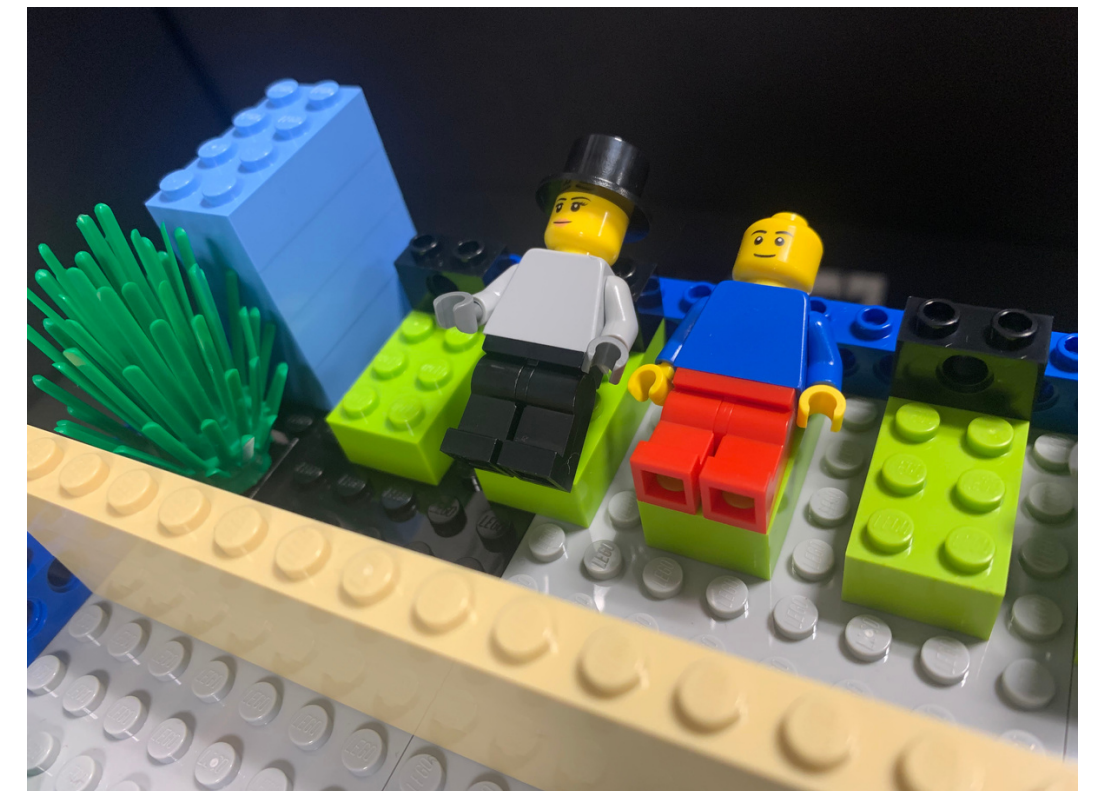
Terminal - Gate



Private Bathroom and Shower



Lobby Rest Lounge



Private Bedroom (Accommodates up to 4 passengers)

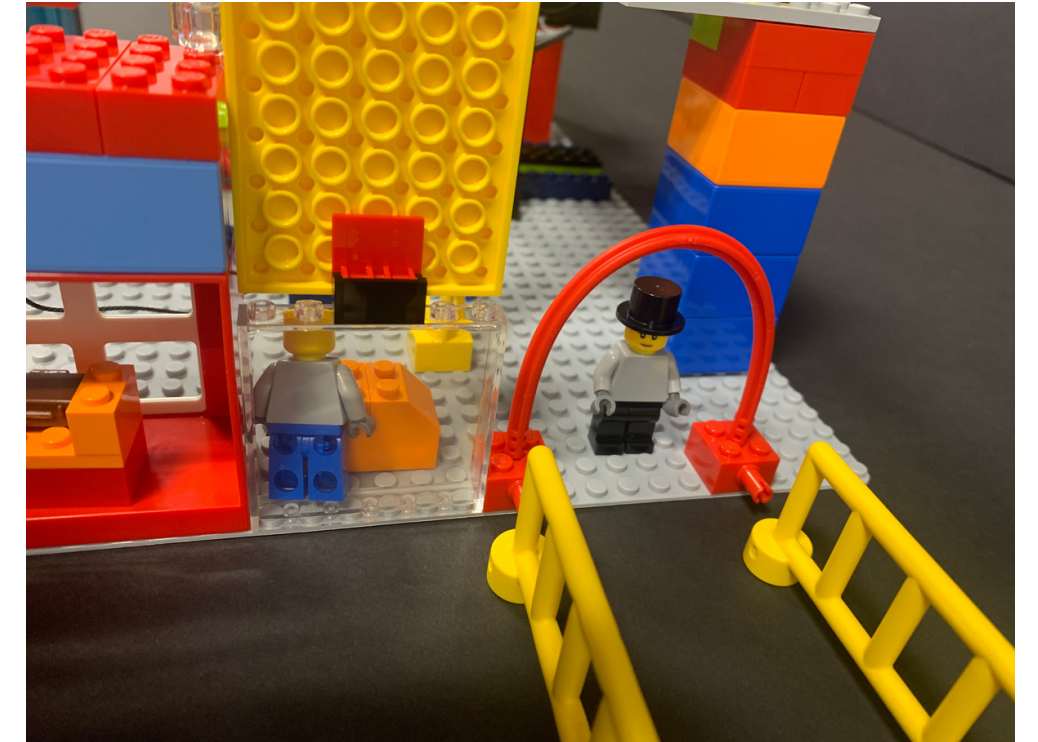
BOARDING TIME

After the airport-wide notification is sent out, passengers will begin to travel downstairs to their gate.

Any passengers that have placed their belongings in airport luggage or smart locker will receive a notification telling them to retrieve their belongings.

Some airlines will provide the option for airport employees to transfer these belongings directly to the gate for passengers to pick up right before they board their plane.

Terminal - Gate



Luggage locker retrieval



Boarding the plane

ARRIVING AT THE DESTINATION

Terminal - Gate

Passengers will deplane after landing where clear signage will direct them to their final destination in the airport whether it is a connecting flight or baggage claim.

Passengers with connecting flights will receive a notification on their phone providing them with an interactive walking map of the airport they arrived at to get to the next flight quickly.

Additionally, TVs located in the jet bridge will inform passengers of important connecting flight information before they even arrive in the new terminal.





PARKING LOT

Yushan Chen—Fan Yin—Manxi Zhu—Bingqing Li—Lu Zhang

PARKING LOT TEAM



YUSAN CHEN

Service Design M.F.A.



FAN YIN

Service Design M.F.A.



MANXI ZHU

Service Design M.F.A.



BINGQING LI

Service Design B.F.A.



LU ZHANG

Service Design M.F.A.

PASSENGER WALKWAY

Parking Lot Team

The premium passenger uses their smartphone to summon a robot luggage carrier, which pulls out their baggage claiming information.

The passenger then walks through the upper-level tunnel to the stair nearest to his car according to the parking space assignment recorded under his name.

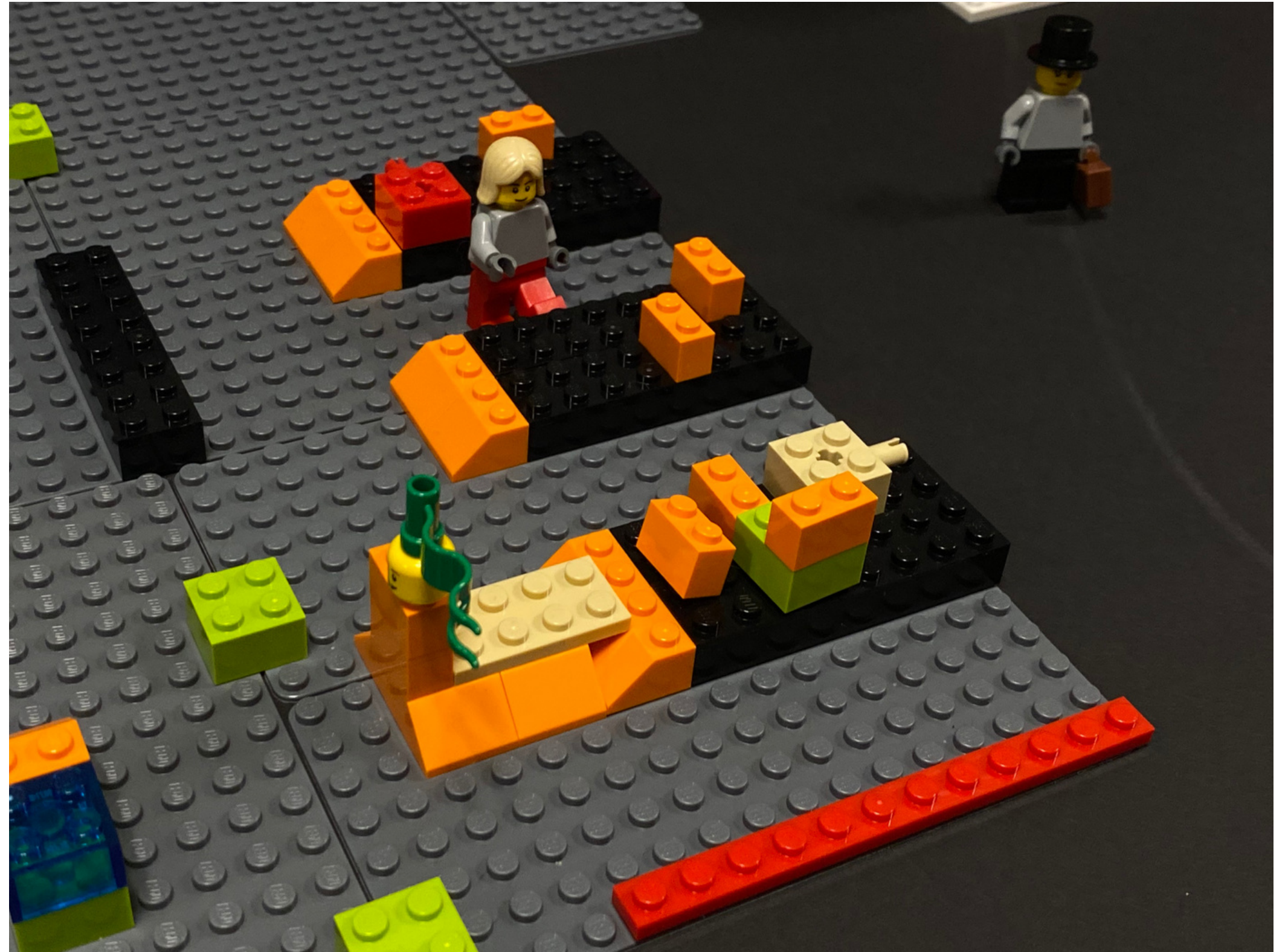


ROBOT LUGGAGE PICK-UP

At the same time, the robot luggage carrier, having received the luggage info ahead, waits for the luggage at baggage claim.

Meanwhile, normal passengers wait for their luggage at the baggage claim belt.

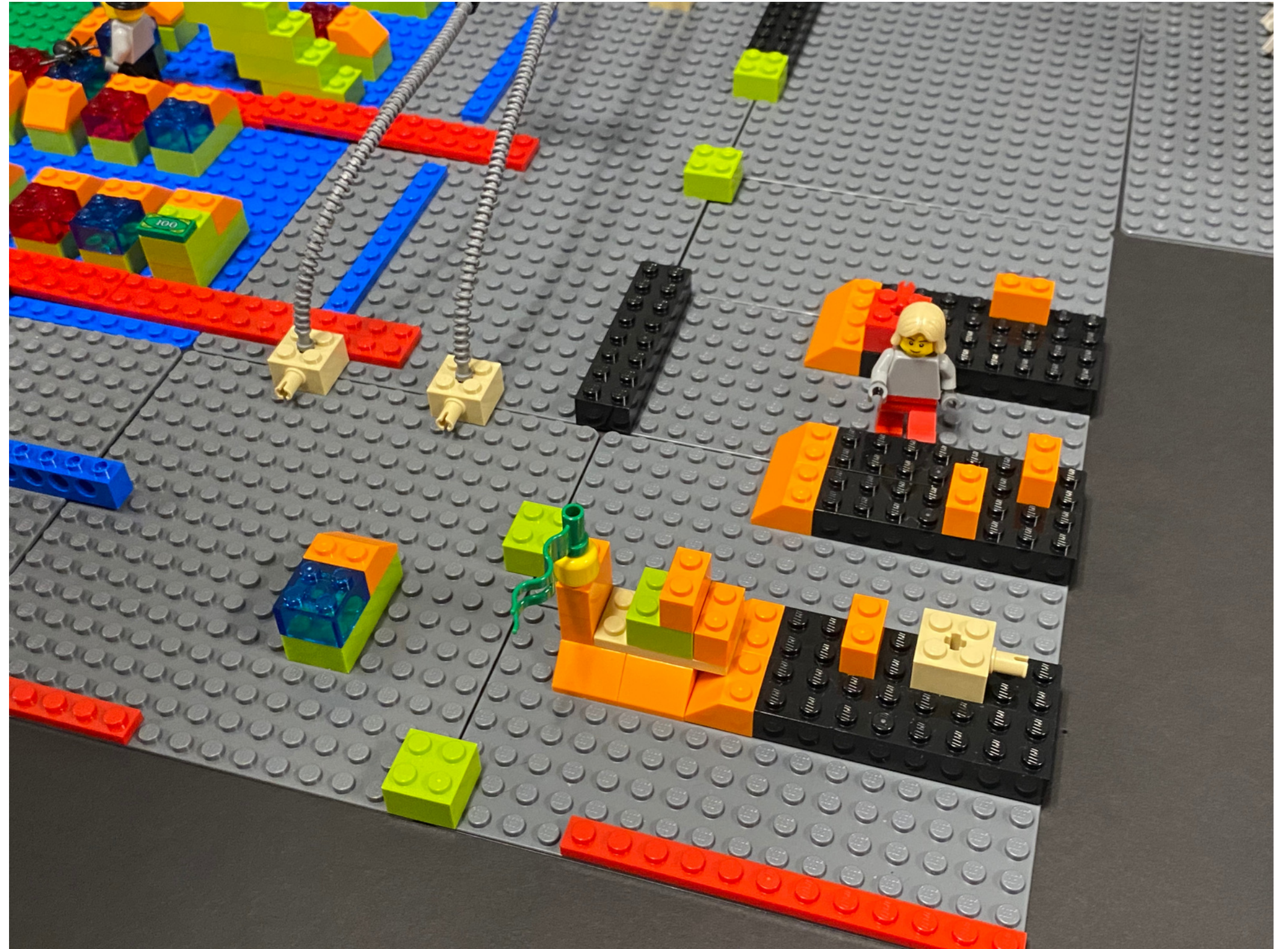
Parking Lot Team



ROBOT-TO-CAR DELIVERY

The robot luggage carrier picks up the luggage and proceeds to the long-term parking lot while normal passengers walk toward the parking lots after manually picking up their luggage.

Parking Lot Team



EASY LOADING

The robot luggage carrier finds the premium passenger's car and unloads the luggage by raising the rear platform to the level of the back trunk where the premium passenger loads the luggage into.

Parking Lot Team

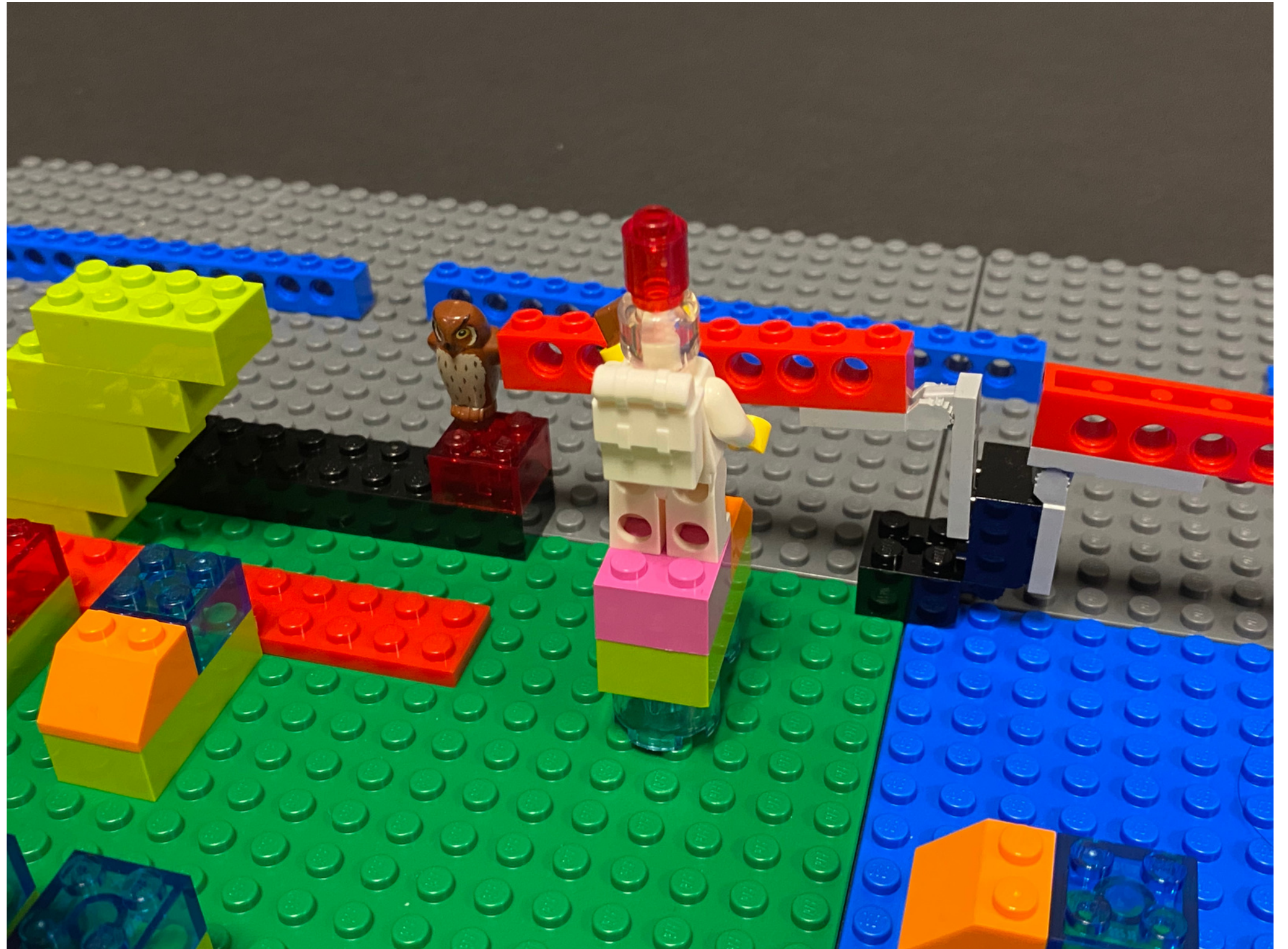


APP PAYMENT

Parking Lot Team

The robot luggage carrier leaves and the premium passenger proceeds to pay for parking and robot usage.

The machine at the exit gate scans the premium passenger's license plate number and pulls out their bill. The premium passenger then chooses to pay via cash, card, or smartphone app.



END

Parking Lot Team

The premium passenger leaves the airport and merges onto the lane he wants.

