Participant X

Demographic Questions
Please answer the question below.

1. Select your age group

- ◯ *18-23*
- ◯ *24-29*
- ◯ *30-39*
- ◯ *40-49*
- ◯ *50-59*
- ◯ *60-69*
- ◯ *70 or older*

2. Select your gender

- ◯ *Woman*
- ◯ *Man*
- ◯ *Non-binary*
- ◯ *Prefer not to say*
- ◯ *Other:*

3. What is the highest level of education you have completed?

- ◯ *Primary school*
- ◯ *Secondary school*
- ◯ *Bachelors*
- ◯ *Masters*
- ◯ *Doctoral*

4. What is your country of origin?

_____

Participant X

5. Do you possess a car driver's license?

- ◯ *Yes, for less than one year*
- ◯ *Yes, for 1-3 years*
- ◯ *Yes, for 4-10 years*
- ◯ *Yes, for 10+ years*

6. How many kilometers did you drive in the last 12 months?

- ◯ *0*
- ◯ *1-5.000*
- ◯ *5.001-10.000*
- ◯ *10.001-30.000*
- ◯ *30.001-50.000*
- ◯ *More than 50.000*

Participant X

*The following two questions will involve the term '***automated vehicle***'.*
In this study, the term 'automated' refers to the state where the car driving system is taking control and operating without direct human intervention.

7. How much do you agree with the following statement:
I would like to take a ride in an automated vehicle.

○	○	○	○	○
Strongly Disagree	*Disagree*	*Neither Agree nor Disagree*	*Agree*	*Strongly Agree*

*8. Please select **ALL** option(s) that best describe your experience:*

○ *I have never used or been in an automated vehicle.*

○ *I have had a ride in an automated vehicle (e.g. robotaxi or automated shuttle) as a passenger.*

○ *I have encountered automated vehicles (e.g. robotaxis or automated shuttles) while driving.*

○ *I have experience with driving a vehicle with automated functions (e.g. adaptive cruise control, lane-keeping system).*

○ *I work in a related field (e.g. automated vehicle development, driver support technology, research on automated vehicle functions or regulation for automated driving technologies).*

Experiment Guide

In the experiment, you will:

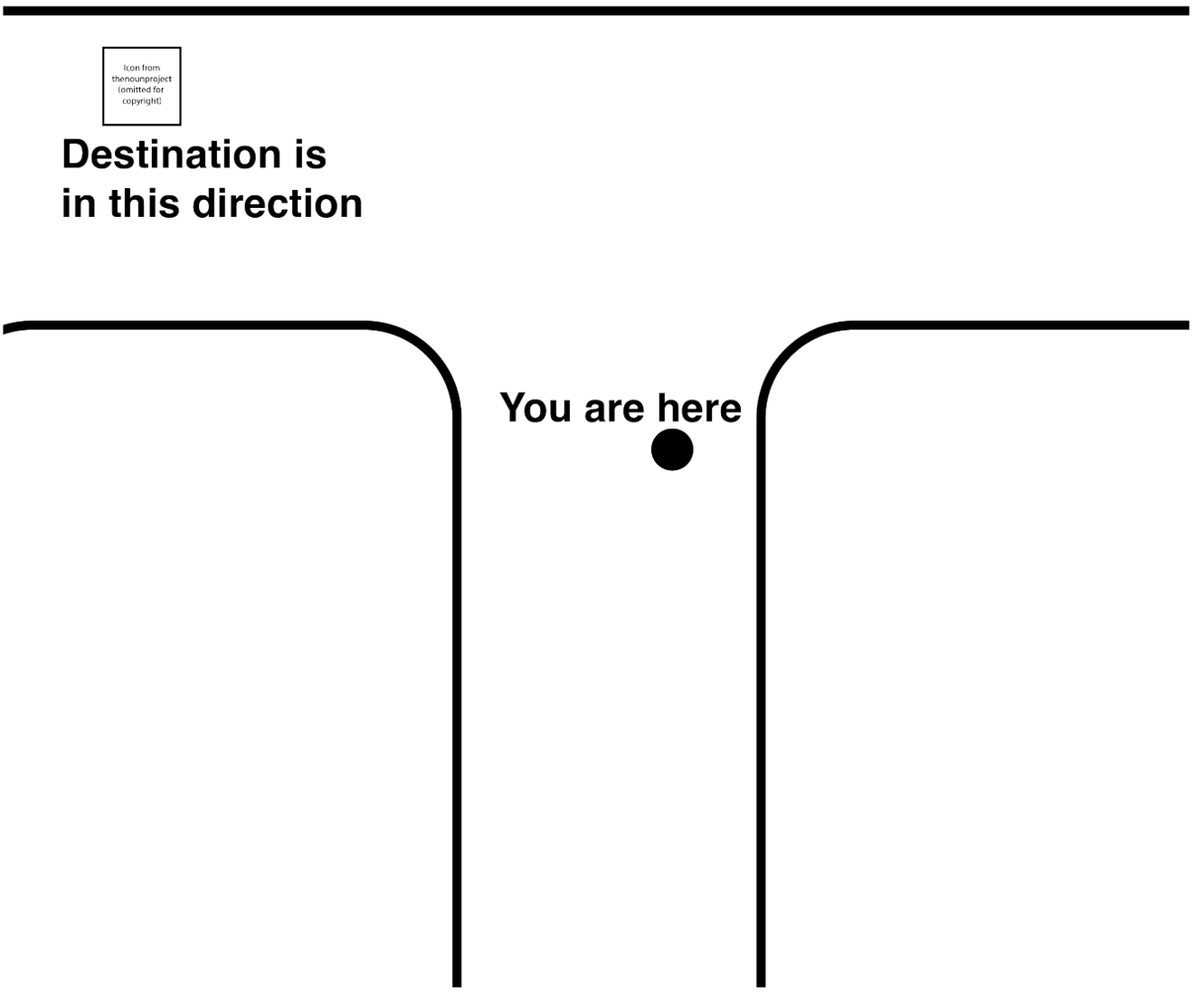
- *Experience four traffic roles.*
- *Answer the questions after each traffic role.*
- *Ideate on communication after experiencing the four traffic roles.*
- *Discuss your ideas during a feedback session.*

*Please note that the term **"automated vehicle"** means:*
The state where the car driving system is taking control and operating without direct human intervention.

In this round, your traffic role is:

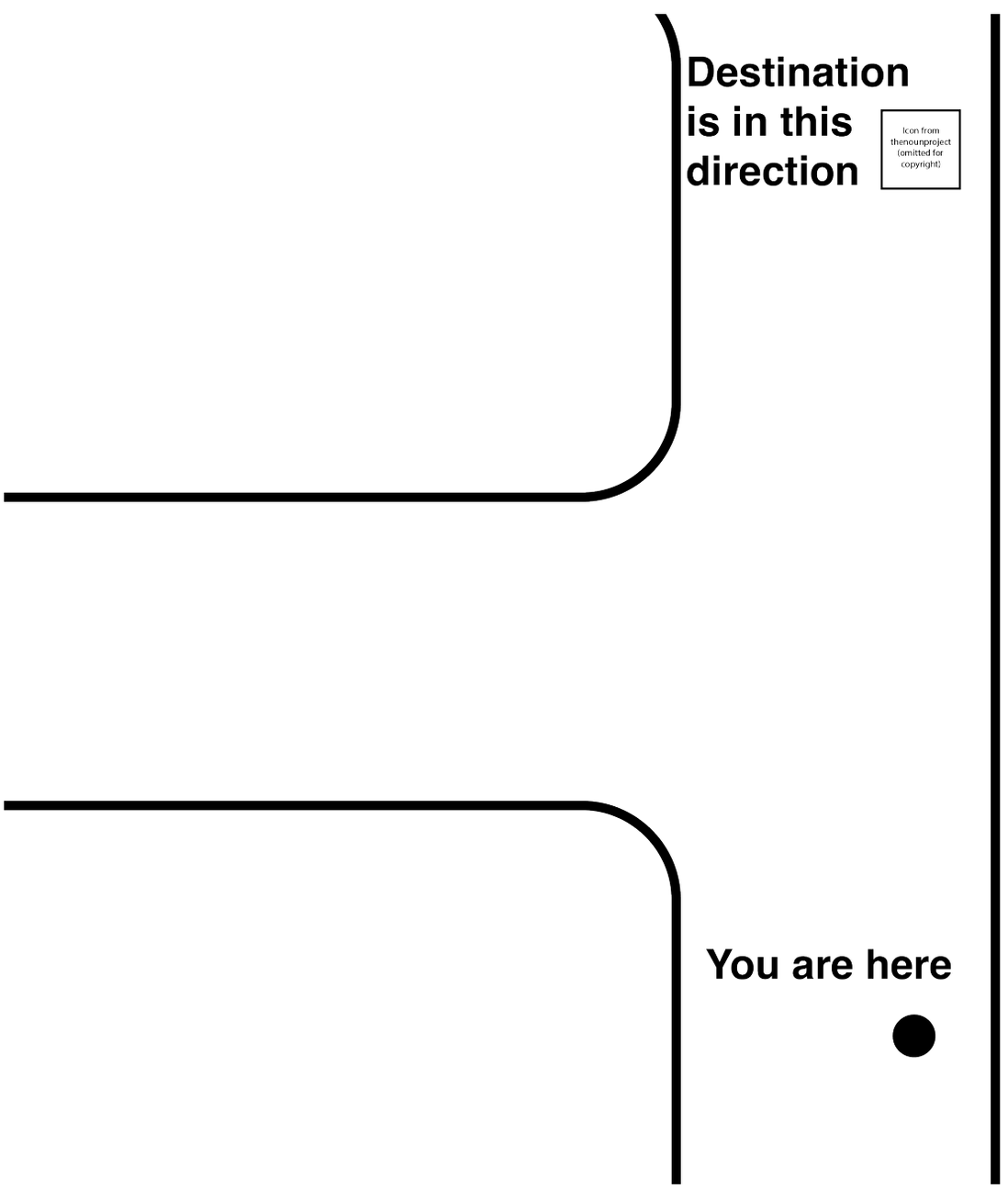
Automated Vehicle Passenger

Icon from thenounproject (omitted for copyright)



In this round, your traffic role is:

Manual Car Driver



In this round, your traffic role is:

Pedestrian

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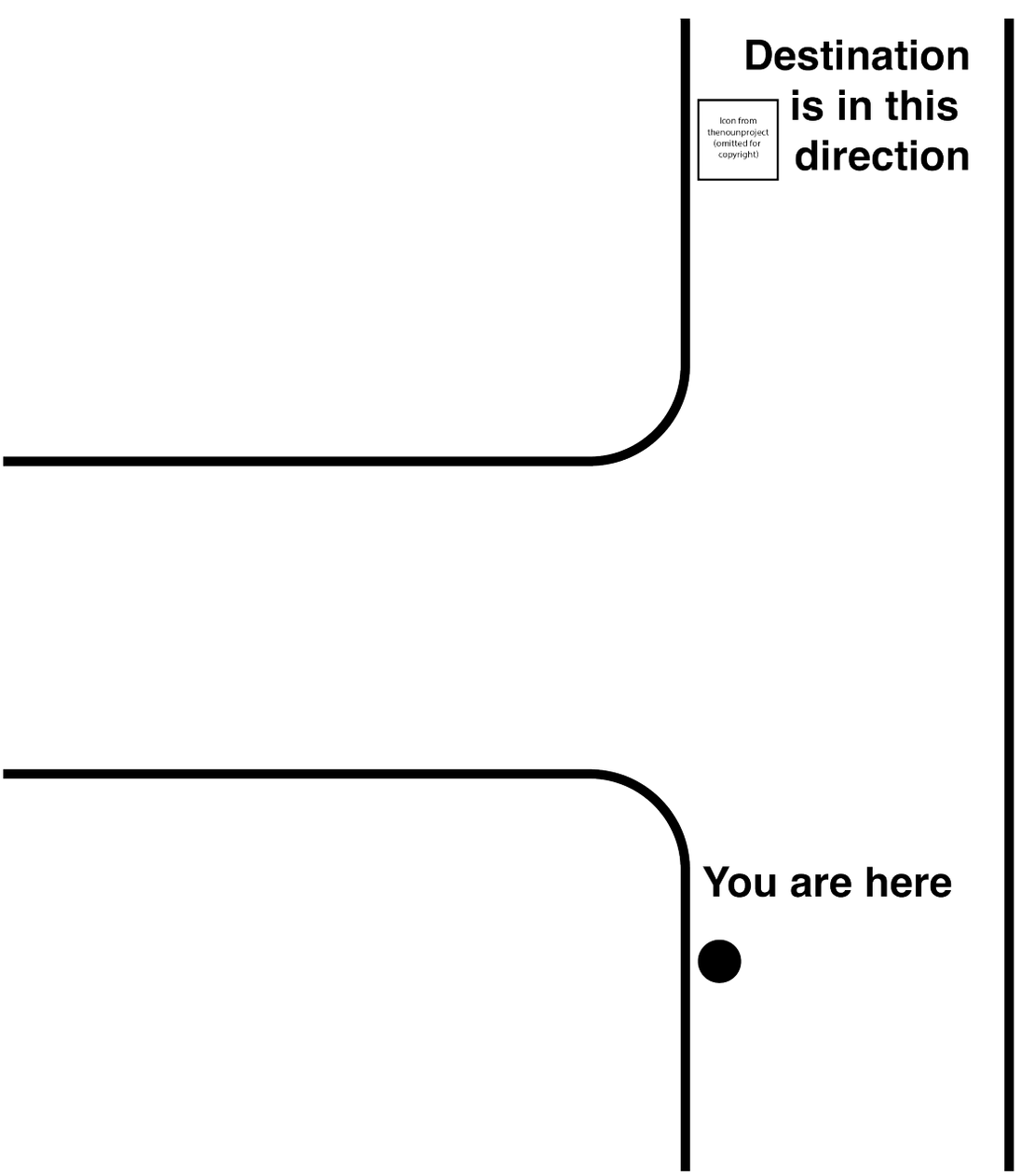

In this round, your traffic role is:

Cyclist

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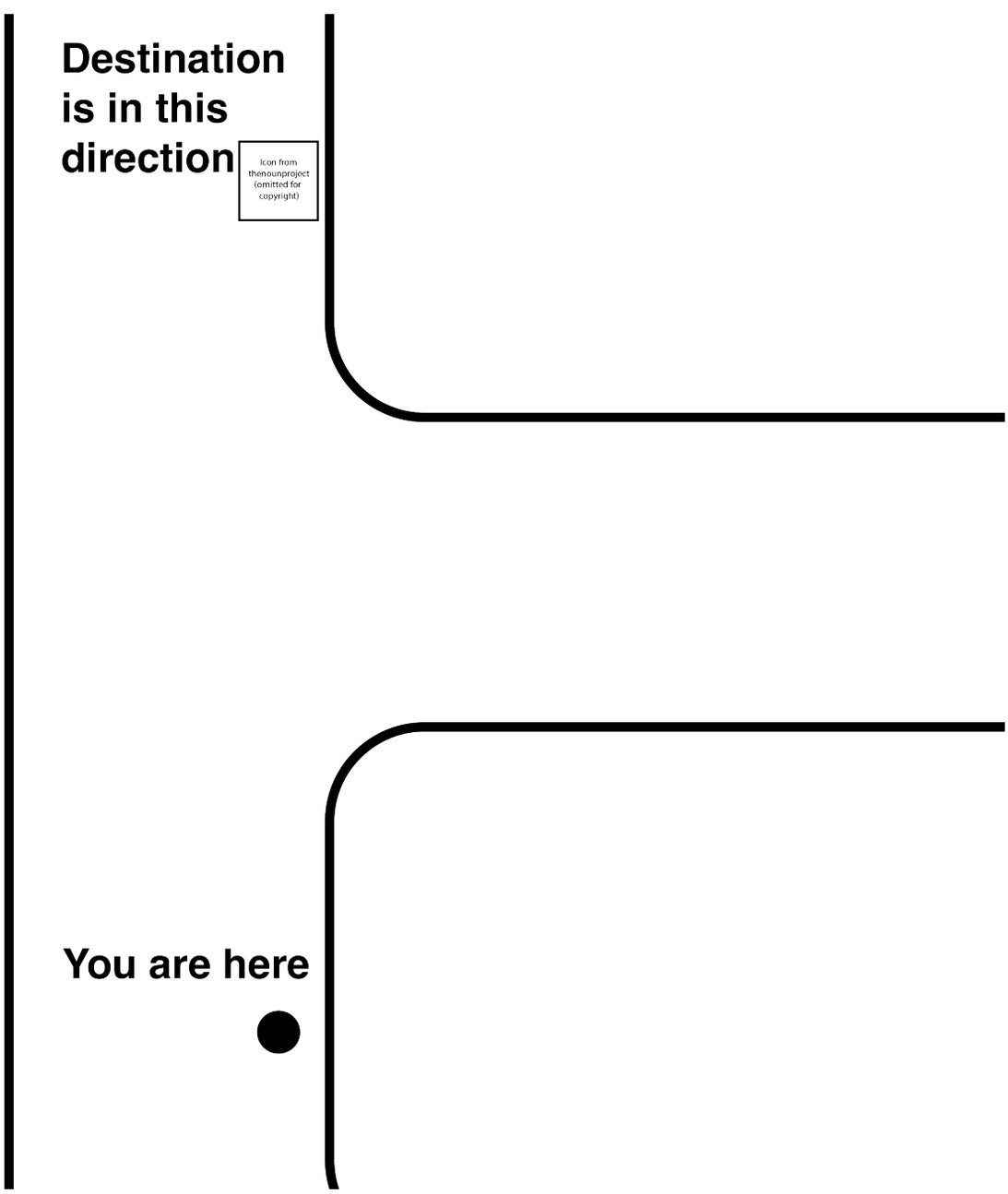

Framing of exercise

When answering the following questions, avoid the automated vehicle instructing others on what to do and aim to think outside the box.
*Please write down **everything** you come up with.*

Please answer the following questions (5 minutes):

From your role, how do you feel about the current traffic situation?

From your role, what are you uncertain about regarding the current traffic situation?

From your role, how would you act in the current traffic situation?

What may help you with this traffic scenario?
(e.g. information, actions, signals, cues, etc.)

How may the automated vehicle help you with this traffic scenario?
(e.g. information, actions, signals, cues, etc.)

Framing of exercise

When answering the following questions, avoid the automated vehicle instructing others on what to do and aim to think outside the box.
Please write down ***everything*** *you come up with.*

Please answer the following questions (5 minutes):

From your role, how do you feel about the current traffic situation?

From your role, what are you uncertain about regarding the current traffic situation?

From your role, how would you act in the current traffic situation?

What may help you with this traffic scenario?
(e.g. information, actions, signals, cues, etc.)

How may the automated vehicle help you with this traffic scenario?
(e.g. information, actions, signals, cues, etc.)

Framing of exercise

When answering the following questions, avoid the automated vehicle instructing others on what to do and aim to think outside the box.
*Please write down **everything** you come up with.*

Please answer the following questions (5 minutes):

From your role, how do you feel about the current traffic situation?

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From your role, how would you act in the current traffic situation?

What may help you with this traffic scenario?
(e.g. information, actions, signals, cues, etc.)

How may the automated vehicle help you with this traffic scenario?
(e.g. information, actions, signals, cues, etc.)

Participant X - Cyclist

Framing of exercise

When answering the following questions, avoid the automated vehicle instructing others on what to do and aim to think outside the box.
*Please write down **everything** you come up with.*

Please answer the following questions (5 minutes):

From your role, how do you feel about the current traffic situation?

From your role, what are you uncertain about regarding the current traffic situation?

From your role, how would you act in the current traffic situation?

What may help you with this traffic scenario?
(e.g. information, actions, signals, cues, etc.)

How may the automated vehicle help you with this traffic scenario?
(e.g. information, actions, signals, cues, etc.)

Participant X

Part 1: Ideation (10 minutes)

Considering all four perspectives you have experienced, please sketch/write out multiple ideas below about how the automated vehicle could help in this situation. Feel free to walk around between the roles, but ***do not*** *discuss yet with other participants.*

Sketch/write out your ideas here:

Participant X

Sketch/write out your ideas here:

Participant X

Part 2: Questions

How much do you agree with the following statements:

1. Experiencing the traffic scenario from four perspectives contributed to my understanding of the traffic scenario as a whole.

○	○	○	○	○
Strongly Disagree	*Disagree*	*Neither Agree nor Disagree*	*Agree*	*Strongly Agree*

2. Experiencing the traffic scenario from four perspectives contributed to generating ideas for communication with the automated vehicle.

○	○	○	○	○
Strongly Disagree	*Disagree*	*Neither Agree nor Disagree*	*Agree*	*Strongly Agree*

Part 3: Group discussion (20 minutes)

Please pitch your best idea to the other participants (1 minute).

Then, give feedback on each other's ideas and discuss together (4 minutes).

***There will be audio recordings during the discussion. Please think out loud and be vocal for the purpose of the transcription.**

Part 4: Remarks (5 minutes)

Do you have any remarks about this study?