

# CAADRIA WORKSHOP DAY 03

*Collaborative Assembly Tasks using AR-enabled HRC system*



# WORKSHOP AGENDA

*CAADRIA 2024 – Day 03*

## [Workshop Objective]

Explore how AR-enabled HRC could support architectural designers in collaborative assembly tasks.



Image: Participant explored AR interactive features within the HRC system. Source: Author, 2024.



# WORKSHOP SCHEDULE

CAADRIA 2024 – Day 03



Image: Time Schedule for CAADRIA 2024 – Workshop Day 3. Source: Author 2024.

# ACTIVITY 01

*Testing the AR-enabled HRC system & develop design strategy for the collaborative assembly scenario (40 minutes)*

Image: Medium scale assembly tasks using the developed AR-enabled HRC system. Source: Author, 2024.



# ACTIVITY 01

*Design brief*

*“Build a lightweight structure enclosure with the cooperative robotic arm using the developed AR-enabled HRC system.”*

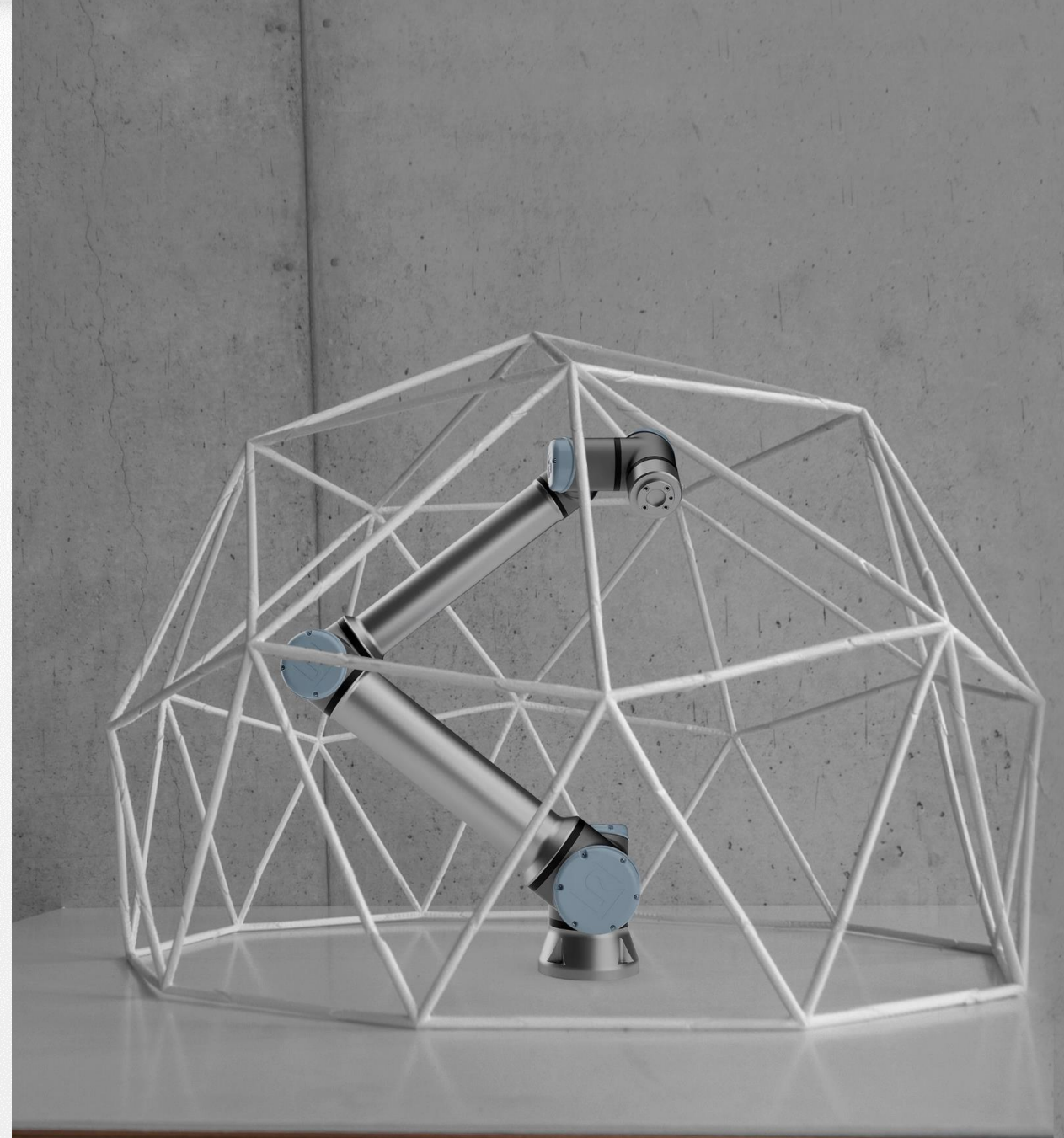


Image: Artistic Impression of Activity 02. Source: Author, 2023.



# ACTIVITY 01

*Design brief, explore AR interface, develop design strategy*

*“Build a lightweight structure enclosure with the cooperative robotic arm using the developed AR-enabled HRC system.”*

- Feel free to delve into the intricacies of the AR interface.
- Develop a design strategy for effectively collaborating with robotic arm to construct the enclosure.

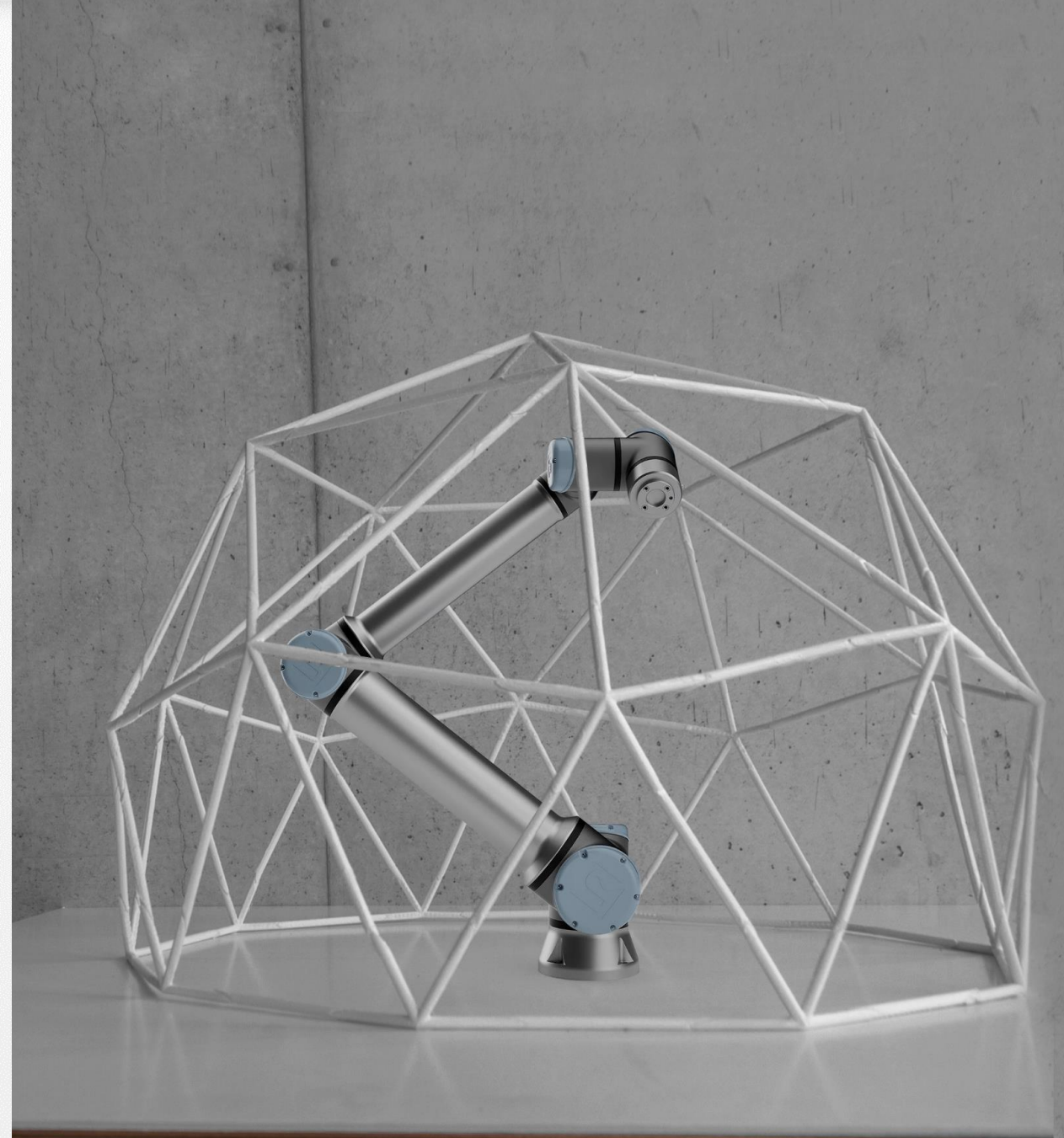


Image: Artistic Impression of Activity 02. Source: Author, 2023.



# ACTIVITY 02

*Construct the lightweight structure (2 hours)*

While assembly using the proposed system, feel free to reflect on the following questions.

- What was your **overall experience** with the AR-enabled HRC system during this workshop?
- What features of the system did **you find most appealing**?
- Were there any aspects of the system that **you found less satisfactory**?
- In what ways do you think the proposed interface could be enhanced?

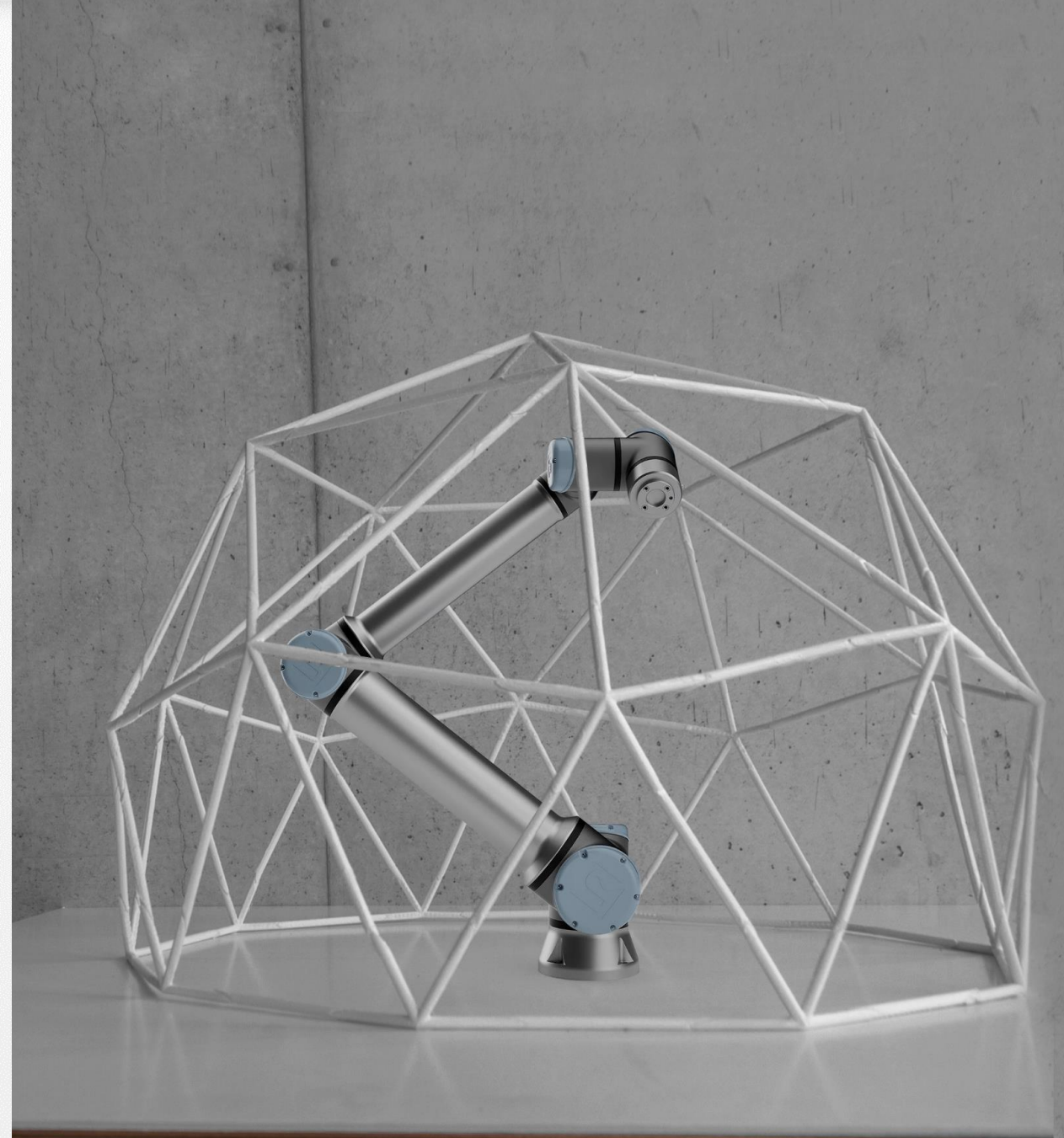


Image: Artistic Impression of Activity 02. Source: Author, 2023.

# BREAK & WILL BE BACK

60 minutes (make sure you have *stay hydrated*)



# ACTIVITY 03

Group Discussion (20minutes)

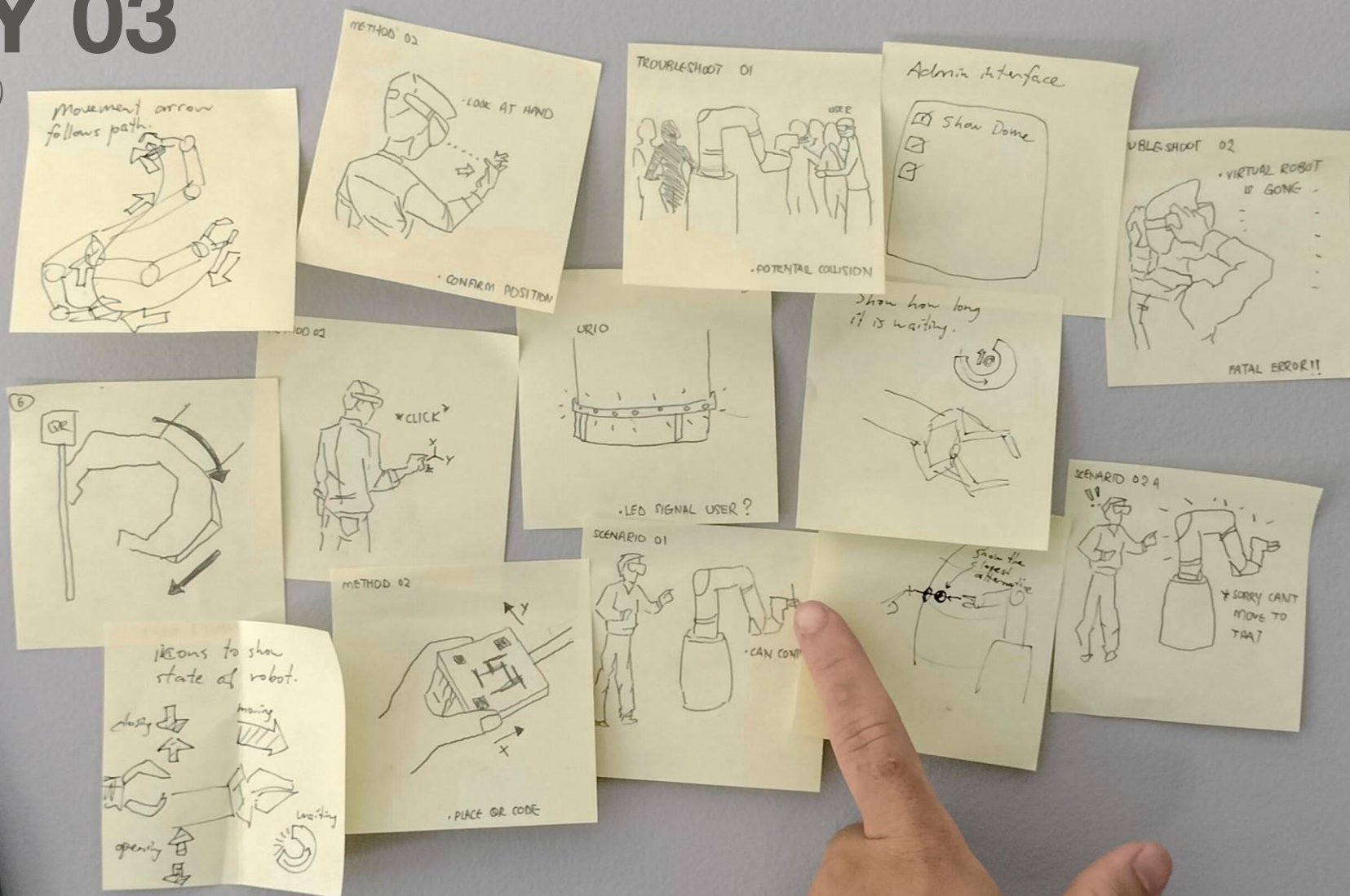


Image: Post-it note exercise. Source: Author, 2024.

# ACTIVITY 03

*Group Discussion (20minutes)*

This group discussion involves a mapping exercise. Please consider the following question.

- What features of the system did **you find most appealing**?
- Were there any aspects of the system that **you found less satisfactory**?
- In what ways do you think the proposed interface could be enhanced?
- What **other fabrication-centric tasks do you think could benefit** from the use of AR-enabled HRC system?

What's your overall user experience?

What features of the system did you find most appealing?

Were there any aspects of the system that you found less satisfactory?

In what ways do you think the proposed interface could be enhanced?



# THANK YOU

*Any question? Thank you so much for participating and feel free to reach out if there is an opportunity for collaboration*