

Intention study instructions for participant

1. You will be asked to describe how you would teach a robot to build a wall. You will be shown a simulated environment, as can be seen in Figure 1.

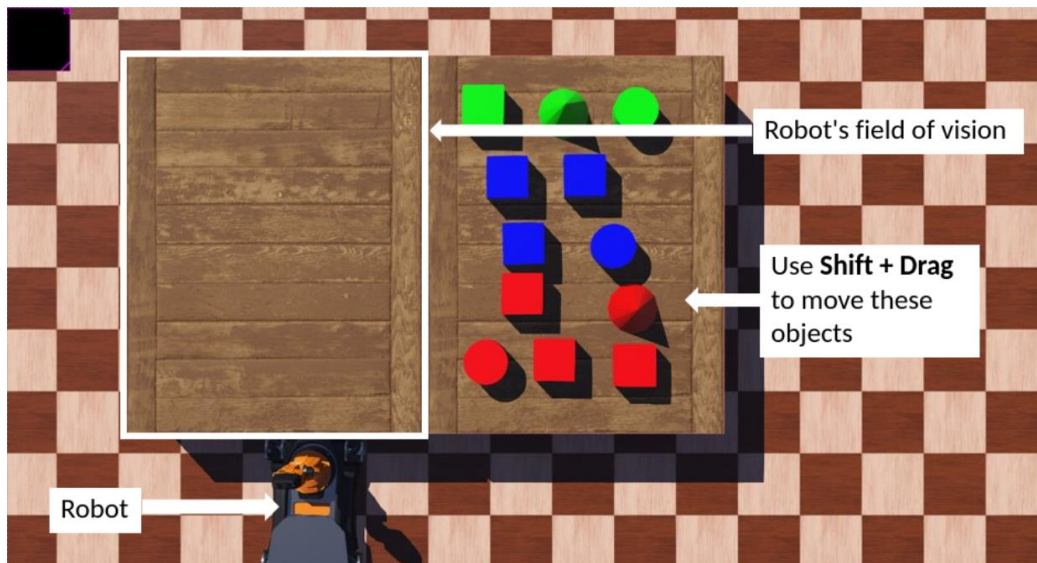


Figure 1: Study environment

2. You will teach the robot to build two kinds of walls. Both these walls are made of objects that do not have anything on top (single layer wall).
 - a. You must teach it to build a wall using objects of the same color as shown in Figure 2.

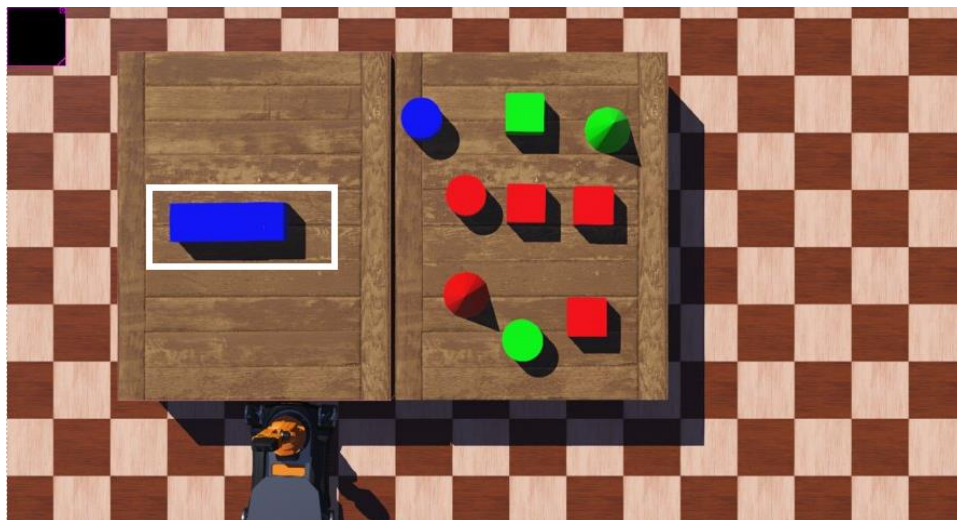


Figure 2

3. You must also teach it to build a wall with any of the objects on the right table as shown in Figure 3.

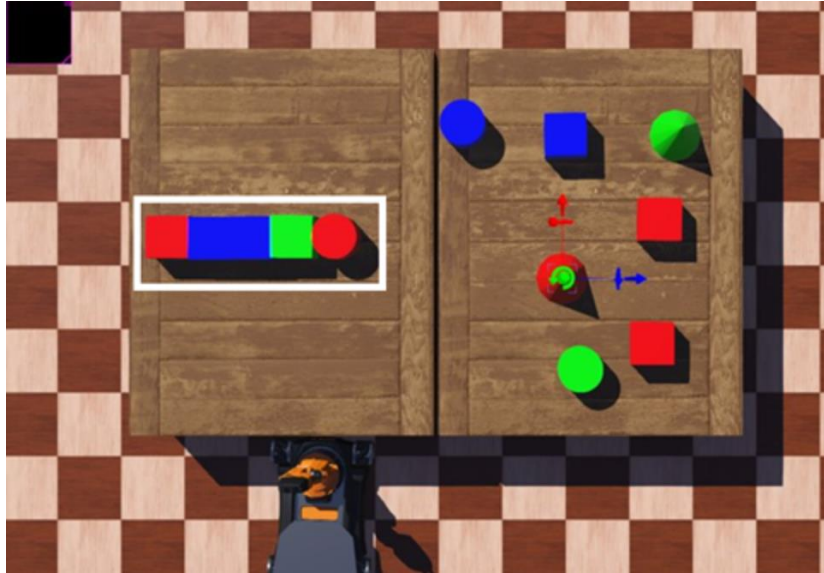


Figure 3

4. At the end of your instruction, the robot should be able to build a wall independently, without any additional guidance.
5. Here's what you need to know about the robot.
 - a. The interviewer will be playing the role of the robot.
 - b. The robot does not know *anything* regarding the objects in the environment. It does not know colors (red, brown, etc.), shapes (triangle, etc.) or relations (left-of, behind, etc.). However, it can learn these concepts through your instructions.
 - c. We recommend that you provide step by step instructions to teach the robot to build a wall, using the objects provided to you. This can include language, pointing at objects and moving the objects using the mouse.
 - d. Use simple language while interacting with the robot. Please wait for the robot to respond after each instruction.
 - e. The robot can only see the objects on the table in front of it (as is highlighted in Figure 1 as *Robot's field of vision*). You must move the objects that you would like to teach about to this table, before you provide any instructions about them.
 - f. You can only drag the objects. Press **shift and drag** the object you would like to move. Use the corner of the objects and avoid clicking the axes.

- g. The robot can point to and move objects, if you ask it to do so. The robot will say "I am taking control of the mouse.", perform the action, and say "Done" to return the control back to you.
- 6. Once you are done teaching, please tell the interviewer that you have completed.
- 7. You can come back and refer to this document during the study.
- 8. Any questions?