# Give overview of the task

(using the visual guide: [MazeGame task instruction\_visual guide (no feedback)](https://docs.google.com/presentation/d/18MVQvua8uvW7VUlXWq5esc3jfDW8ZGh83sd8wz9YGoM/edit?usp=sharing))

In this task, you will use the arrow keys in the keyboard to move an agent through a maze to find where a target object is located - we’ll call it the goal location.

[show visual guide page1] Here is an example of what a maze could look like. Here, the giraffe is the agent. It cannot move through trees, and should move through the paths that are not blocked with trees. The untaken paths are shown in darker shade to hide where the goal location is.

[show visual guide page2] As the agent moves through the maze, the hidden blocks will disappear and reveal the open space. As you can see in this example, the agent and the target are related to help you memorize the maze. Once the agent reaches the goal location, a new maze will appear. Do you have any question so far?

[show visual guide page3] When you finish going through 8 different mazes, we’ll do something a bit different. We’ll show you the mazes again without the agent, and this time, we’ll ask you to tell us where you think the goal location was in that particular maze. You simply need to click on a location that you think where the target was for the given maze. It might be obvious, but target objects are always on the ‘path’ and never on the ‘wall/tree/blocking structure’, so you won’t be able to click on those. At your response, the location you chose will be highlighted as black. You’ll be asked about all 8 mazes in this part. Do you have any question about this part?

Once you complete the quiz part for the 8 mazes as well, we’ll repeat the navigation and quiz 2 more times for this set of mazes.

[show visual guide page4] after you complete 2 more times for this set of mazes, we’ll do another type of quiz. This time, there will be no colorful path and ‘wall/tree/blocking structure’, the mazes will be all uni-color, either grey or black color. The ‘path’ that you move through will appear as grey color, while the ‘wall/tree/blocking structure’ will appear as darker black color. Your goal is similar as before, you’ll be click on a location that you think where the target was for the given maze. After you click, the location you chose will be highlighted as black. Do you have any question for this part?

In total, we have 24 mazes with unique themes, so there will be 4 maze sets, each contains 8 mazes. Each maze set will appear 3 times, you will only see the non-contextual quiz (the quiz containing unicolor blocks) once at the end of the third repetition. It takes about 45 minutes to complete.

# Give instruction for the practice

(when you run Maze\_practice\_noFeedback.py)

Alright, we’ll give you a few practice trials first - just to give you an idea of how the task goes. Does that sound good?

Navigation part (Nav) [there are 3 trials in practice]

Press any key when you are ready to start!

[when a maze loads] Agent will appear in the left upper corner of the maze.

Use the arrow keys [point to the arrow keys for the patients as the keyboard layout may not be the same as what they’re familiar with] to move the agent through the maze until the agent finds the target object.

[when patients finish first practice] Great job! This is how each navigation trial will go. Do you have any question? [address any question they have] Ok, let’s do a couple of more practice just to get you comfortable with it!

Quiz part

Press any key when you are ready to start!

[when a maze loads] Alright, now we’ll try out the quiz part. As I’ve mentioned before, you only see the map of a maze during the quiz. Give your best guess using what you remember from the navigation in this maze you did earlier, and click the goal object location (only the monochromatic squares are valid).

[when their choice location gets highlighted as black] Great - the black square is showing the location you’ve chosen.

# Check on the need for more practice

Check with the subject whether they want to do more practice or whether they feel ready to start the experiment. If they want more practice, simply re-run the code (Maze\_practice\_noFeedback.py) from PsychoPy Coder.

# Give instruction for the main task

(when you run Maze\_main2\_noFeedback\_patients.py)

Great job!! Do you have any question before we start the real part of the experiment? It will be the same as the practice except that there will be more mazes and more repetitions.

**[**After 9 blocks are run, the program will display a message saying “The experiment is finished, thank you for your participation.” then the program will exit automatically]