

Geneva Space Cruiser – a fully self-administered online tool to assess prospective memory (Chinese version)

日内瓦宇宙飞船： 一个网络前瞻记忆全自测工具（中文版）

Instructions manual

指导语手册

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IMPORTANT :**重要**

This instructions manual provides a page-per-page guide of the task instructions used to administer the Geneva Space Cruiser online.

本指导语说明书提供了日内瓦宇宙飞船任务施测的逐页指南。

A free demo version of the Geneva Space Cruiser (in English) can be found [here](#).

日内瓦宇宙飞船的免费演示版（英文）可以在这里找到 [here](#)。

If you decide to reproduce the Geneva Space Cruiser, the information provided in this manual and the demo version can be used without copyright and free of charges. However, we kindly ask you to reference the initial validation study below in your projects that use data stemming from the Geneva Space Cruiser:

如果您决定重制作日内瓦宇宙飞船任务，您可以免费使用本手册和演示版本提供的信息（无版权）。但是，我们恳请您在使用日内瓦宇宙飞船任务收集数据的项目中引用这篇最初的任务验证研究：

Zuber, S., Haas, M., Framorando, D., Ballhausen, N., Gillioz, E., Künzi, M., & Kliegel, M. (2021) The Geneva Space Cruiser: A Fully Self-Administered Online Tool to Assess Prospective Memory across the Adult Lifespan. *Memory*. <https://doi.org/10.1080/09658211.2021.1995435>

If you would like direct access to our online tool to collect your data in a collaborative context, please contact us (Sascha.Zuber@unige.ch).

如果您想直接获取我们的在线工具合作收集您的数据，请与我们联系 (Sascha.Zuber@unige.ch)。

Geneva Space Cruiser – page-per-page instructions

日内瓦宇宙飞船-逐页说明

1) Ongoing task and prospective memory instructions + practice

1) 进行中任务与前瞻记忆指导语+练习

Page 1

第一页

In this task, your goal will be to gain as many points as possible.

在这个任务中，你的目标是获得尽可能多的分数。

To do so, you will navigate a spaceship whose purpose is to collect stars.

为了这个目的，你将驾驶一艘宇宙飞船去收集星星。

For each star that you collect, you will gain 30 points.

每收集一颗星星，你将获得30分。

You can navigate the spaceship by using the arrow keys on the keyboard (up, down, left, right keys).

你可以使用键盘上的方向键(上、下、左、右键)驾驶宇宙飞船。

You will also have to avoid rocks. If your spaceship collides with one of the rocks, you will lose 100 points.

你还需要躲避石头。如果你的飞船撞上其中一块石头，你将失去 100 分。

Thus, try to avoid the rocks by navigating the spaceship. You can also destroy the rocks by firing missiles from your spaceship.

因此， 驾驶飞船时尝试避开这些石头。你还可以从你的飞船上发射导弹摧毁这些石头。

To fire missiles, press the "F" key. If you destroy a rock, you will gain 30 points.

发射导弹可以按“F”键。如果你摧毁一块石头，你将获得30 分。

Click on "Continue" to proceed with the instructions.

点击“继续”看接下来的说明。

Page 2**第二页**

In the following pages, you will be able to familiarize yourself with the game.

在接下来的几页中，你将熟悉这个游戏。

You will start by familiarizing yourself with the navigation of the spaceship by using the arrow keys pointing up, down, right, and left.

你将首先通过上、下、左、右箭头按键熟悉宇宙飞船的驾驶。

You will also practice shooting missiles by pressing the "F" key.

你也将练习通过按 “F” 键来发射导弹。

Press "Start" to begin the familiarization phase.

点击 “开始” 来练习游戏操作。

Page 3**第三页**

Press the right arrow key on your keyboard until the spaceship touches the edge of the screen.

按键盘上的向右键，直到宇宙飞船触及屏幕边缘。

Page 4**第四页**

Press the left arrow key on your keyboard until the spaceship touches the edge of the screen.

按键盘上的向左键，直到宇宙飞船触及屏幕边缘。

Page 5**第五页**

Press the up arrow key on your keyboard until the spaceship touches the edge of the screen.

按键盘上的向上键，直到宇宙飞船触及屏幕边缘。

Page 6**第六页**

Press the down arrow key on your keyboard until the spaceship touches the edge of the screen.

按键盘上的向下键，直到宇宙飞船触及屏幕边缘。

Page 7**第七页**

Very good! Now you can practice firing missiles by pressing the "F" key.

非常棒！现在你可以按“F”键练习发射导弹。

Page 8**第八页**

Press the "F" key.

按“F”键。

Page 9**第九页**

Fire once more using the "F" key.

再次按“F”键。

Page 10**第十页**

Very good! Next, your spaceship will also need fuel.

非常棒！接下来，你的飞船还需要燃油。

You can display the fuel gauge by pressing the "C" key.

你可以通过按“C”键查看燃油表。

As soon as the fuel gauge is in the red section, you can refuel your spaceship by pressing the space bar on your keyboard.

当燃油表显示红色时，你可以按键盘上的空格键给飞船加油。

If you refuel it at the right time, you will gain 300 points.

如果在适当的时间补充燃油，你将获得 300 分。

If you forget to refuel it, the fuel gauge will automatically refill but you will not receive any points.

如果你忘记加油，燃油会自动装满，但你不会得到任何分数。

Press "start" to familiarize yourself with the fuel level of your spaceship.

点击“开始”来熟悉你的宇宙飞船的燃油水平。

Page 11**第十一页**

Press the "C" key on your keyboard to display the fuel gauge.

按下你键盘上的“C”键显示燃油表。

Page 12**第十二页**

Press the "C" key on your keyboard again to display the fuel gauge.

再次按你键盘上的“C”键显示燃油表。

Page 13**第十三页**

Very good. Now that you are familiar with the different elements of the game, you can practice on a complete example of the game.

非常棒！你已经熟悉了这个游戏的不同元素，接下来可以进行一次完整的游戏练习了。

Summary of the goals:**目标总结:**

- Collect stars – for each one you will gain 30 points.

收集星星：每收集一颗你将获得 30 分。

- Avoid rocks – each collision will cost you 100 points.

避开石头：每次碰撞将扣除你 100 分。

- Destroy rocks – for each destroyed rock, you will gain 30 points.

摧毁石头：每摧毁一块石头，你将获得 30 分。

- Refuel the spaceship – each time you refuel on time (when the gauge is in the red section only), you will gain 300 points.

给飞船加油：每次你按时加油(只有当仪表显示红色时)，你将获得 300 分。

Key reminder:**按键提示:**

- Arrows – to navigate the spaceship.

方向键：驾驶飞船。

- F – to fire missiles.

F 键：发射导弹。

- C – to display the fuel gauge.

C 键：显示燃油表。

- Space bar – to refuel.

空格键：加油。

You can now do a full practice session.

现在你可以做一个完整的练习。

Press "start" to begin the practice.

点击“开始”进入练习环节。

Page 14

第十四页

Very good. You have completed the practice session.

非常棒！你已经完成了练习环节。

Page 15

第十五页

Very good. You have completed the practice.

非常棒！你已经完成了练习。

Next time you will play this game, the goals will be the same as for this practice session.

下次你玩这个游戏的时候，目标和这次练习是一样的。

Click on "continue".

点击“继续”。

2) Filler task – delay phase

2) 填充任务-延迟阶段

>> Insert your instructions for the filler tasks or questionnaires of the delay phase here.

>> 您在此处插入延迟阶段的填充任务或问卷的指导语。

In the demo version of the Geneva Space Cruiser, we used a simple Code / Symbols task as follows:

在日内瓦宇宙飞船的演示版本中，我们使用了一个简单的代码/符号任务，如下所示：

Stimuli :

刺激：

- 1 image as example
- 1 张示例图片
- 42 images for the task
- 42 张任务图片

Presentation format and response coding :

呈现形式和反应编码：

- Each image is presented for 5000ms maximum (or less; it disappears as soon as the participant responds).
- 每张图像最多呈现5000ms (或更短；图片在被试做出反应后会立刻消失)
- For each image, the response (the number that is selected) and the reactions times (in ms) are recorded
- 对于每个图像，反应(被试选择的数字)和反应时间(ms)会被记录
- In the end, you can calculate :
- 最后，你可以计算：
 - The number of correct responses
 - 正确回答的数量
 - The total reaction time for all correct answers
 - 所有正确答案的反应时

Task Code/Symbols - Instructions

代码/符号任务 - 指导语

Page 1

第一页

In the following task, we will present you a series of 9 symbols. Each symbol will be accompanied by a number.

在接下来的任务中，我们将向你展示一系列 9 个符号。每个符号都伴随一个数字。

Above these 9 symbols and numbers, you will see a single symbol in the middle of the screen. It will be framed in blue.

在这 9 个符号和数字的上方，你会在屏幕中央看到一个单独的符号。它会在蓝色的框里面。

Your task will be to choose the number that matches the symbol in the middle as quickly as possible.

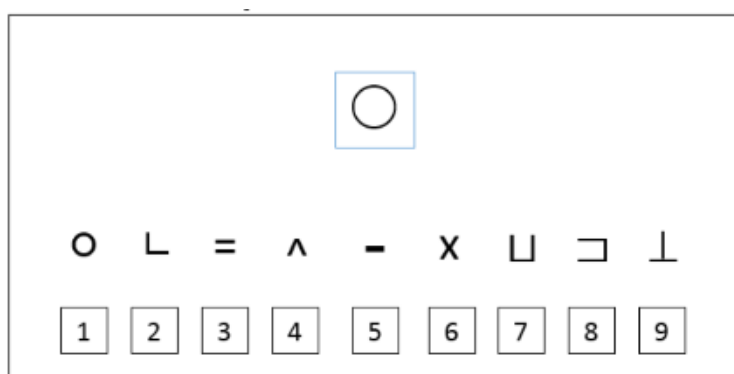
你的任务是尽可能快速地选择与中央符号相匹配的数字。

Page 2

第二页

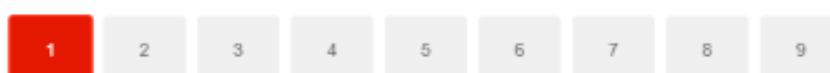
First, here is an example:

首先，这里有一个示例：



The correct answer for this series is the number 1 because the circle symbol is accompanied by the number 1. You will have to click on « 1 » to respond, as shown below.

这个序列的正确答案是数字1，因为圆形符号对应数字1。你需要点击« 1 »进行反应，如下图所示。



Page 3**第三页**

The task will now start and you will see several series of symbols and numbers.

任务即将开始，你将会看到一系列符号和数字。

As a reminder: your task is to choose the number that matches the symbol in the middle of the screen, framed in blue. Please answer as quickly as possible without making any mistakes.

提醒：你的任务是选择与屏幕中央蓝色框中的符号相匹配的数字。请尽快且正确地回答。

Click on « → » to start the task.

单击 « → » 开始任务。

3) Prospective memory task block**3) 前瞻记忆任务阶段****Page 1****第一页**

Now you will have to navigate the spaceship as you did during the practice session.

现在你需要像练习时一样驾驶飞船。

Click on « start » to begin.

点击 « 开始 » 开启游戏。

After the task / End**任务结束后**

Thank you for taking the time to participate in this study.

感谢你抽时间参与本项研究。

Your answers have been recorded.

你的回答已被记录。