

«به نام خدا»



هوش مصنوعی و محاسبات زیستی – دکتر حاجی پور
ترم 1402_01

پرnian طاهری 99106352

آزمایشگاه علوم اعصاب

HW 02 - Psychtoolbox

In this homework, we supposed to make a pschophysic task using psychtoolbox on Matlab. In this task random number of images ([3, 5, 7, 9]) in each trial is shown to a monkey and if the monkey chooses the high-value image gets 3 point and if it chooses the low-value one gets 1 point.

There are 2 types of sessoins, TA and TP. In TA all the images are low-value, and if it chooses one of them gets 1 point but if does not choose any for 2 to 4 sessions it gets 1 point in the end.

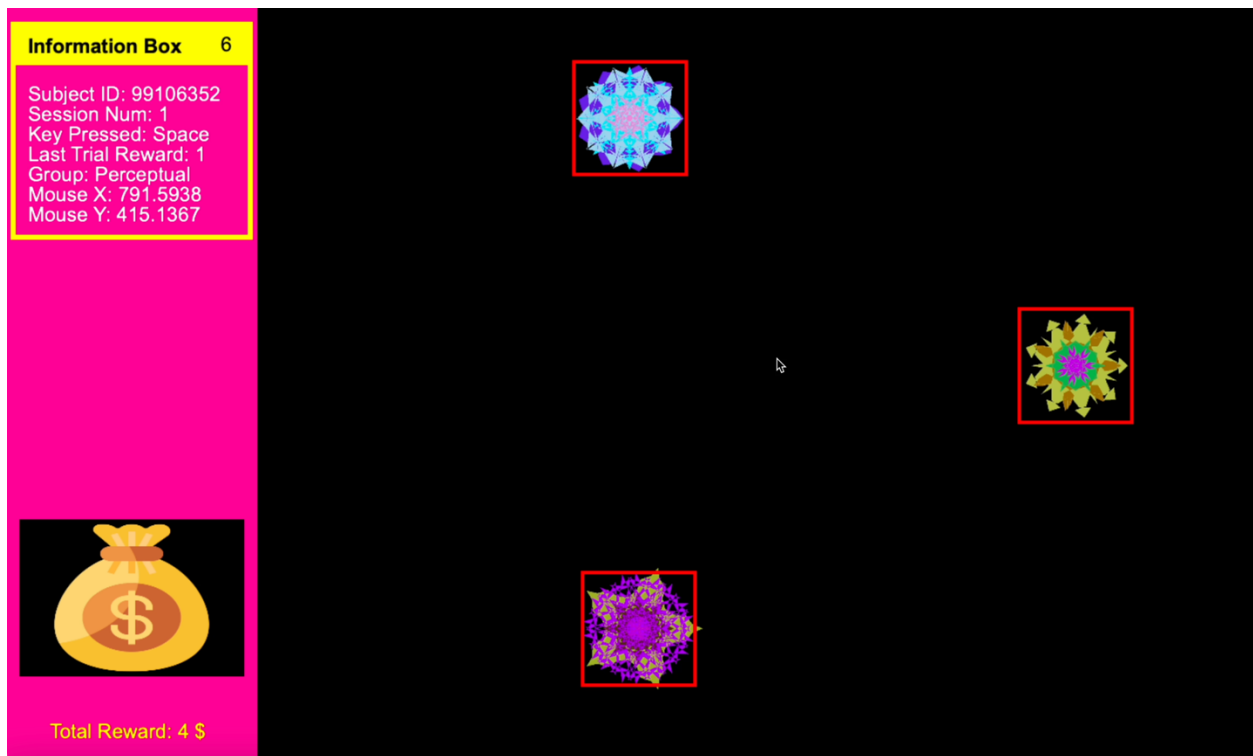
I use keyboard for choosing images as below:

X: reject

Space: choose

ESC: return

There is also an information box in the left and total reward in the bottom:





You earned 1 \$

In the video, multiple situations are brought:

1. TA low-value (1\$)
2. TP high-value (3\$)
3. TA reject
4. TP reject
5. TA reject
6. TA reject (1\$)
7. TA low-value (1\$)
8. TP low-value (1\$)
9. TP no selection
10. TA no selection

You can hear beep sound in 9 and 10.

Functions:

show:

Based on trial (TA or TP), shows fractals and detect buttons, which where pressed.

Mouspos:

Detects If mouse is on the fractals.

getFractal:

Selects fractals and return their positions and numbers.

getBadFractal:

Selects low-value fractals.

infBox:

Draws box of information.

showReward:

After each trial that reward was earned shows a window that the amount of reward is shown.

conditions:

Randomly assign TA and TP to the trails.