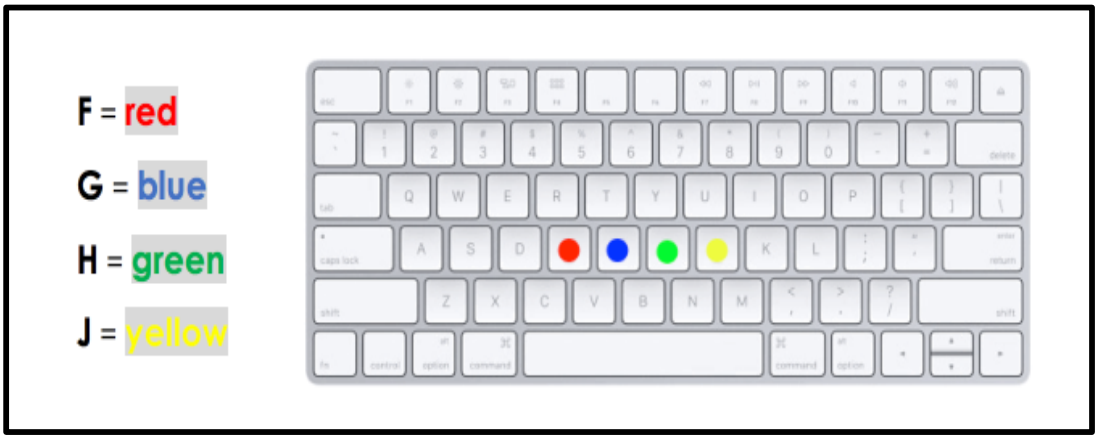
Conducting the Stroop Task

Reminders

A. Please ensure you arrive at lab 15 minutes early. This will give you time to turn on the PC and set up task following the instruction outlined in this document.

B. Ensure participant feels comfortable, and follow standard ethical procedures (i.e. Ensure participant of their right to withdraw).

C. Check that the keyboard in use has the correct stickers in place before beginning task. Please see below.



What is the Stroop Task?

In this Stroop task, participants will be presented with words, one after the other, through a program called **PsychoPy**. Each word will be the name of a colour. For some words, the colour of the text will match the word presented (i.e. **green**) and for others it will not (i.e. **blue**).

The participant must respond to each word by pressing the keyboard button corresponding to the **colour** of the word.

It is found that people usually take longer to respond to the unmatched words. The Stroop task is therefore a great neuropsychological test which can be used to measure several things, such as one's processing speed and/or selective attention.

Information for Participant

It is your job to ensure the participant understands the requirements before beginning the task. Although instructions will be displayed once Psychopy has begun, please verbally explain the task using the guide outlined on the following page. You may also wish provide participants with a printed off copy.

Stroop Task Instructions for Participant

You will be presented with 120 names of colours. For some, the colour of the text will match the text (i.e. **green**). For others, it will not (i.e. **yellow**).
You must ignore the actual word presented, and focus instead on its **colour**. If you look at your keyboard, you will see 4 colour stickers over the F, G, H, and J keys. Use these to submit your answers.

The black box below represents what you will be seeing.

Although there are 120 words, you will receive breaks. You can then continue the task by pressing SPACE. Following these, you will have 3 seconds before the first word is shown which will give you time to place your fingers in the correct position. Although each word will remain on screen until you give an answer, **we encourage you to be as quick and as accurate as possible.**

These instructions are also shown immediately before the beginning of the experiment so don't worry if you're not 100% certain. You will also receive several practice trials prior to experiment to ensure you are comfortable with the task.

Setting up the Stroop Task

To present the Stroop Task, work through the following steps.

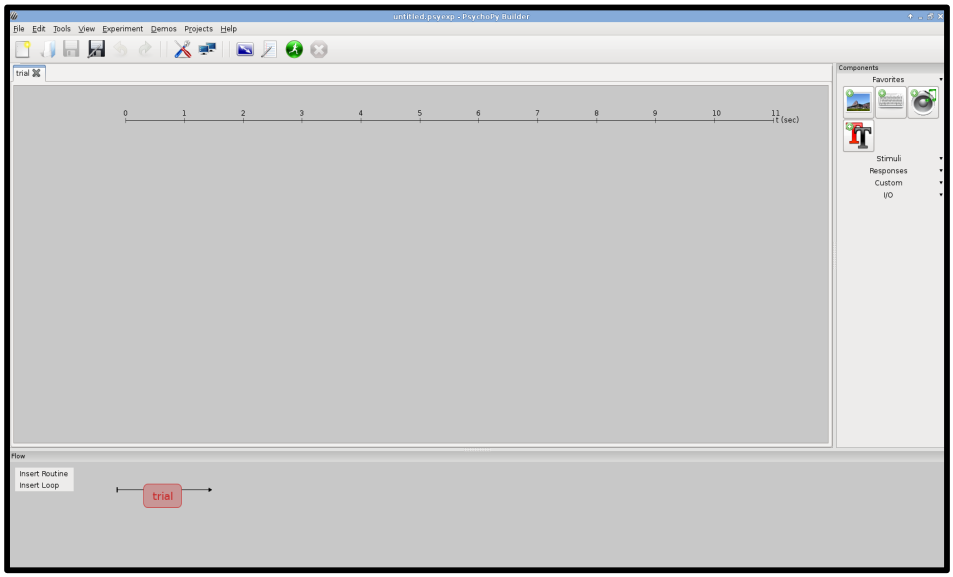
Opening Psychopy

i. Login to PC using your YNiC username and password.

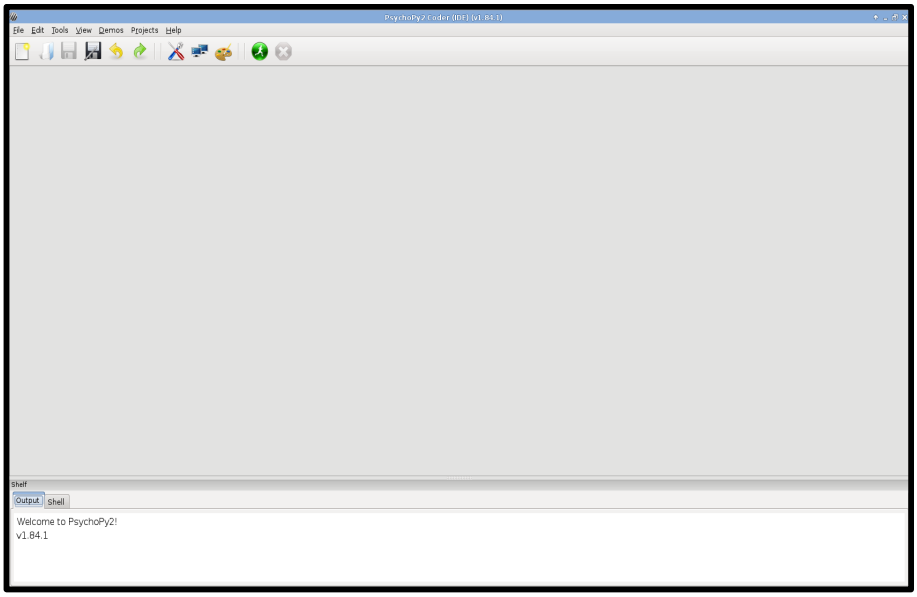
ii. Navigate to **Applications** located at the top left hand corner of the screen.

iii. From this, navigate to ***Development > PsychoPy*** to open Psychopy.

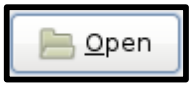
iv. Psychopy may open in builder view, which looks like this;



v. If you find yourself here, navigate to **View > Open Coder view** to open the coder GUI, which looks like this:



Load Stroop Script

From here, navigate to ***File > Open.*** In the **Location** box at the top, enter ***/randomdirectory/stoop.py*** and click the 

button at the bottom right of the window.

Changing Script Parameters

ONLY CHANGE PARAMETERS IF YOU HAVE BEEN ASKED TO DO SO BY SUPERVISOR.

At the top of the Psychopy script, you can change certain things about how the experiment will run.

I. If you are going to have more than 99 participants, you will want to change **ID_LEN** to 3.

II. If you wish to amend the number of practice runs each participant gets, change **NUMBER_OF_PRACTICES** (recommended = 6).

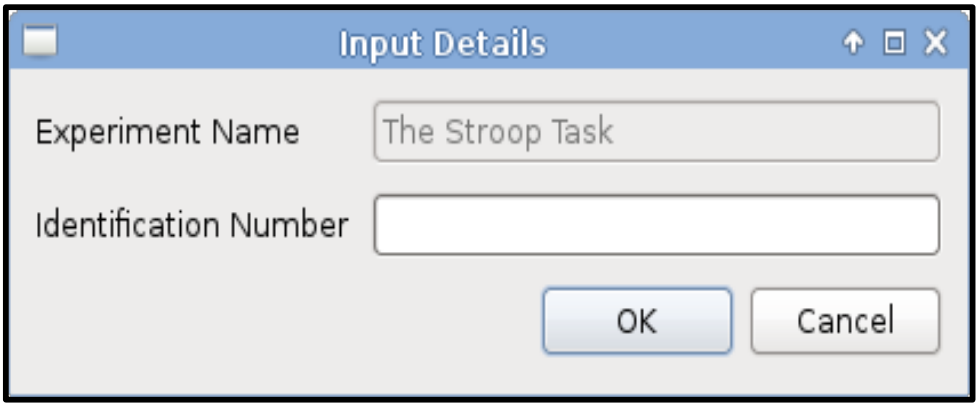
III. If you wish to change where breaks occur in the experiment, change **BREAK_INTERVAL** to 20, 30 or 60. Set to 120 if you do not wish to include breaks.

IV. Participants will be shown their results following the experiment. To stop this, set **SHOW_RESULTS** to False.

Run Script

i. Now that the file is open, click on the green button which should be visible at the top of the screen.

ii. A dialogue box will then appear (see below). Please enter participant number here. Remember that all participant numbers are **2 digits long** (i.e. 01), unless otherwise specified.



iii. From here, the participant should be able to work through the task. You should therefore leave the room until participant appears to have finished.

Information on Experiment Analysis

Once you have completed the above procedure for all participants, you must analyse the data.

To do this, you will be running a Python script through a program called Spyder:

i. Navigate to **Applications > Development > Spyder**.

ii. Like with the Stroop script, navigate to **/randomdirectory2/analyse_stroop.py** to open the analysis script.

iii. You can ignore most of the script. Go to lines **82** and **83** (seen below), and replace **/PLEASE ENTER DIRECTORY/** with **/randomcsvdirectory/** (this is where the Stroop Task data in csv format will have been stored).

```
82 # Save filenames in directory which end in .csv.
83 filenames = sorted(glob('/PLEASE ENTER DIRECTORY/*.csv'))
```

iv. Ensure that you do not remove the colons or any other code during this process.

v. Finally, you simply need to run the script. To do this, click the green arrow at the top of the page – seen below:

Well Done!

You should now have all he analysis output. A table containing all participant reaction time means, standard deviations, and percentage of correct responses (accuracy) will have been printed, along with the same numbers for the group.

Finally, if you navigate to **/randomdirectory2/** you will also find a boxplot under the filename **group_stroop.png** plotting all group means for the congruent and incongruent conditions.

That's everything you'll need.

If you have any issues, feel free to contact the lead investigator:

Name: Random Name
Email: randomemail@gmail.com
Tel: Random Number