**Understanding the task and python script**

1). Open PsychoPy and press the green running figure at the top (or Ctrl + r) to run the script.

2). When the GUI appears, all you need to enter is the subject ID. The GUI automatically assumes one run (i.e. facing left or right), but you can change it to 2, in which case you'll also complete one run, but it will be asking for whether the letter E is moving forward or backward. If you change the "All" field to Yes, you'll do both runs in randomized order, one after the other.

3). The task consists of a tutorial, practice section, and main run(s).

4). On the screen you will see the letter E, comprised of 13 dots, and some noise dots that make the picture less clear.

5). The number of noise dots on screen varies. On the first practice trial there are 25, and on the first main run trial there are 33. Once you get three successive trials correct, 4 more noise dots will be added to the field. If you get another three successive trials correct, another 4 noise dots are added, increasing the difficulty of the task. There is no ceiling for noise dots; if you keep doing well, you will receive more noise dots. If you choose the wrong answer on a trial, 4 noise dots will be removed; however, the minimum noise dots you will see on screen is 17. Even if you get all trials wrong, there will be 17 noise dots on the screen.

6). There is an important variable called NoiseDotStartLvl. During the practice it starts at 3, and during the main run(s) it starts at 5. Each time you get 3 successive trials correct, this variable increases by 1. If you get an incorrect answer, the variables decreases by 1 (but never goes lower than 1).

7). The main run ends either when you get through all 80 trials or when you reach 12 reversals, whichever comes first.

8). A reversal is defined as when the NoiseDotsStartLvl goes from a higher number to a lower number, and vice versa. A visual way to think of this is a sinusoidal curve; the peaks and valleys are the reversals. It is important to note though that you can get all trials wrong or all trials right and have a reversal of 0 (because the NoiseDotsStartLvl was always increasing or decreasing; it never changed).