

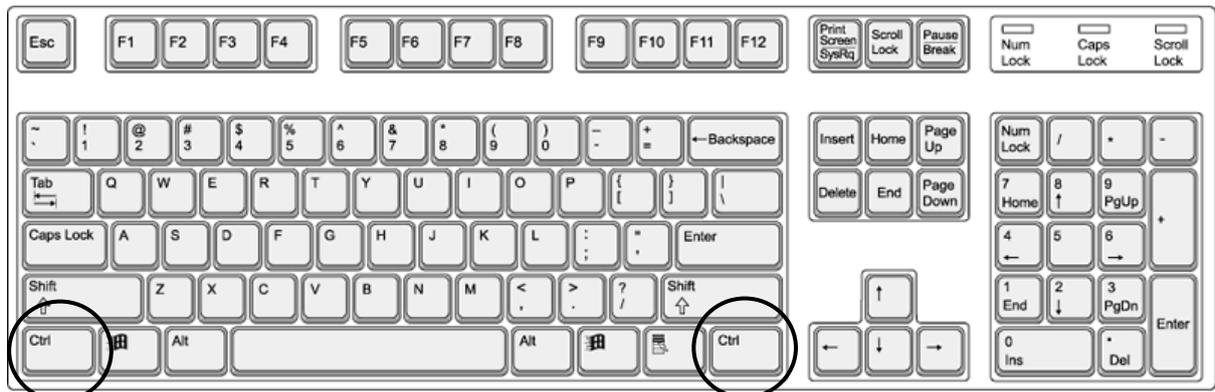
Information Sheet

The aim of this experiment is to investigate how best to design interfaces to support users when interacting with a brain computer interface. We are using a **simulator** to recreate the effects of a brain computer interface, which is much slower and less reliable than a mouse or keyboard. The simulator is controlled by two keys on the keyboard, and it will add errors and delays into your input.

Generating Signals

The simulator is controlled by pressing either LEFT CTRL (to move left) or RIGHT CTRL (to move right). You should sit with your hands over these keys on the keyboard. When one of these keys is pressed, the simulator will create a signal that looks like a signal from a brain-computer interface. This may sometimes move the cursor in the *opposite* direction to the key you are pressing. This is normal and an important part of the process that we are studying.

You will have a chance to practice with the simulator moving a cursor left and right before the experiment itself begins.



←
Left

→
Right

The Task

You will be presented with a display showing a small red box inside of a larger box with a white border. A diagonal dividing line will be shown. Your task is to decide whether the red box is on the left or right side of the dividing line, and choose the appropriate direction by pressing the relevant CTRL key. For example, in the diagram below, the target is right of the dividing line, so you would press RIGHT CTRL. You just need to press once; don't hold down the SHIFT key.

After a few seconds the divider will move to a new position. Remember, the simulator may move the divider the wrong way; this is completely normal.

As you repeat this left/right process, the screen will gradually zoom in on the red box. When it is fully zoomed in, a new target will be shown. This will be fully demonstrated to you before you begin the experiment.

Please try and choose the appropriate side of the divider as accurately as you can, but do not worry if the divider does not move as you intended – just carry on with the next divider and the system will recover. **You don't need to correct your mistakes**, as we are testing how well our system can cope with errors created by the simulator.

