Today you are going to be participating in an experiment about vision. In this experiment your objective is to respond to things that appear on the screen in front of you. There are three parts to the experiment, which will last about 1 hour total. The first part is a kind of pre-test and the third part is a kind of post-test these two parts will be relatively brief. The middle part of the experiment is the main experimental task that will take the majority of the time. In the first and third parts of the experiment you will be responding with the keyboard in front of you, and in the second part of the experiment you will be responding by moving your eyes. For the second part you will be wearing an eyetracking headset. You’re free to leave at any time if you wish, just let me know and I will stop the experiment. Any questions before we get started?

In the first part of the experiment you will be responding to what you see with this keyboard. At first you’re going to see a cross in the middle of the screen and two boxes on either side of the cross. For the entire duration of this section you are going to keep your eyes locked on to that center cross. On each trial there are two different visual elements that you may or may not see. The first is a small white square that looks like this: (show what the square looks like) that may appear on either the left or the right side in either of those two boxes. After that one, the second is this larger white square donut shape that will appear in both locations. Your job is to indicate whether or not you saw the small white square, and you do this with the ‘Y’ and ‘N’ keys, that’s Y for yes and N for no. And then if you respond Yes, you did see the small white square, you will then indicate which side you saw it on, and you’ll do this with the left and right arrow keys. If you’re uncertain about whether or not you saw it, you may respond with Yes and take your best guess as to which side it appeared on. We will do this first part of this experiment a total of 2 times. Any questions? Remember to always keep your eyes on that center cross.

In the second part of the experiment you will be responding to what you see by moving your eyes, which will be tracked with this headset. In a moment I will set that up for you, but first I’ll explain this part. Once again you’re going to see that center cross and the two boxed regions on the left and right. This time, the white square is going to appear in either the left or the right box and it’s going to stay there and your job is to look directly at the white square with your eyes as fast as you can when it appears. So on every trial, you’re going to begin by looking at the center cross, then the square will appear on one of the sides, and as soon as you see that square you move your eyes to look right at it. And you want to do that as fast as you can. Once your eyes successfully land on the white square, the screen will indicate this by lighting up the side where your eyes landed. At the end of the trial, the cross will appear again and you’re going to look at the cross once again to prepare for the next trial. It’s very important that you keep your head very still throughout the entire duration of this section and to only move your eyes as you need. The best time to blink is after you have successfully looked at the white square, otherwise please try not to blink during the rest of the trial. Every 10 trials there’s going to be a little break in which it’s a good time to blink, but again, please try not to move your head or your body around too much once the experiment has started. And once again, the objective here is to look at the white square as fast as you can when it appears. The instructions I just gave you are going to apply to the first half of this part of the experiment. Before the second half of this part there will be a longer break and I will give you further instructions before we proceed. As a side note, you will also periodically see dot shapes on the screen, just look right at them when they appear.

Ok so that was the first half, please take as long of a break as you need to rest your eyes and let me know when you are ready to continue.

So now we are going to do the second half that is very similar to the first half, except this time, when the white square appears, you are not going to look directly at it like you did last time. Instead a you are going to look to the opposite side of where it appears as fast as you can. So if the white square appears on the left, you must move your eyes to look at the middle of the box on the right, doesn’t matter exactly where, just aim for the middle. You may find this difficult sometimes, but it is ok to make mistakes, if you accidentally look at the white square or start to look at the white square, just correct yourself and move your eyes to the other side quickly. Again, you want to respond as fast as you can. Other than that, this half is the same as the previous half. Each time you complete a trial and successfully look at the opposite region, move your eyes back to the center cross when it appears. Try not to move your head or body, and you’ll get a short break every 10 trials.

That was part 2, one more part remains, I’ll take the headset off you because we won’t need it anymore.

This final part is relatively short. It is very similar to the first part that you did. Once again you will be responding with the keyboard. You’re going to keep your eyes on the center cross the entire time. On every trial the white square is going to appear on either the left or right and you’re going to indicate with the left or right arrow keys which side the white square appeared on. If you’re uncertain or you did not see the white square, just take a guess.