**Belt- Navigation Experiment:**

This experiment investigates whether the perceived direction of vibrations felt on your skin can be used to guide locomotion. During the experiment, you will be asked to wear a tactile belt over your shirt and walk in a VR environment. The belt contains vibrating motors that correspond to different directions in space around you to reach a desired goal.

There are four blocks of trials in this experiment. The first block consists of visual trials to get you used to walking in the VR space, with no tactile vibrations. To start a trial, walk to the blue pole and turn to face the red pole. Your task is to walk to two goals indicated by green poles. You might need to look around to see them. A trial is completed when you hear an audio cue.

The second block contains visual-tactile trials, in which you will see a green goal pole and simultaneously feel vibrations indicating the direction of the goal. Once you have reached a goal, the belt will vibrate with a ‘Stop Signal’ consisting of four motors in the cardinal directions (you'll feel this on your belly button, right side, back, and left side). After the ‘Stop Signal’, the next vibration will guide you to the next goal. While walking, practice focusing on the vibrations to get accustomed to using the belt to guide your walking.

In the last two blocks, you will be guided by the tactile belt alone. Use the vibrating motors to steer toward the two goals in each trial. Walk in the direction of the vibration as accurately as possible. Once you reach a goal, the ‘Stop Signal’ will go off. Like the previous block, focus on feeling the vibrations on your waist. In one of the blocks, the vibration intervals will become shorter to indicate that you are getting closer to the target; in the other block, the vibrations will remain constant.

The experiment will take 1.5 hours in total and consists of 4 blocks. There will be one short break. Be assured that you can take an additional break or stop at any time by telling us. Do you have any questions?

**Instructions for wearing the belt with assistance:**

1. Secure the belt around your naval area over your T-shirt, ensuring it is as tight as possible and has no gaps between the belt and your waist, while still allowing comfortable breathing. Position the buckle on the left side and the battery at the back.
2. Put on the compression belt over the tactile belt, to ensure that the tactile belt underneath it is pressed against all parts of your waist.
3. Before the first experimental block, there will be a few vibrations to calibrate the direction of vibrations.