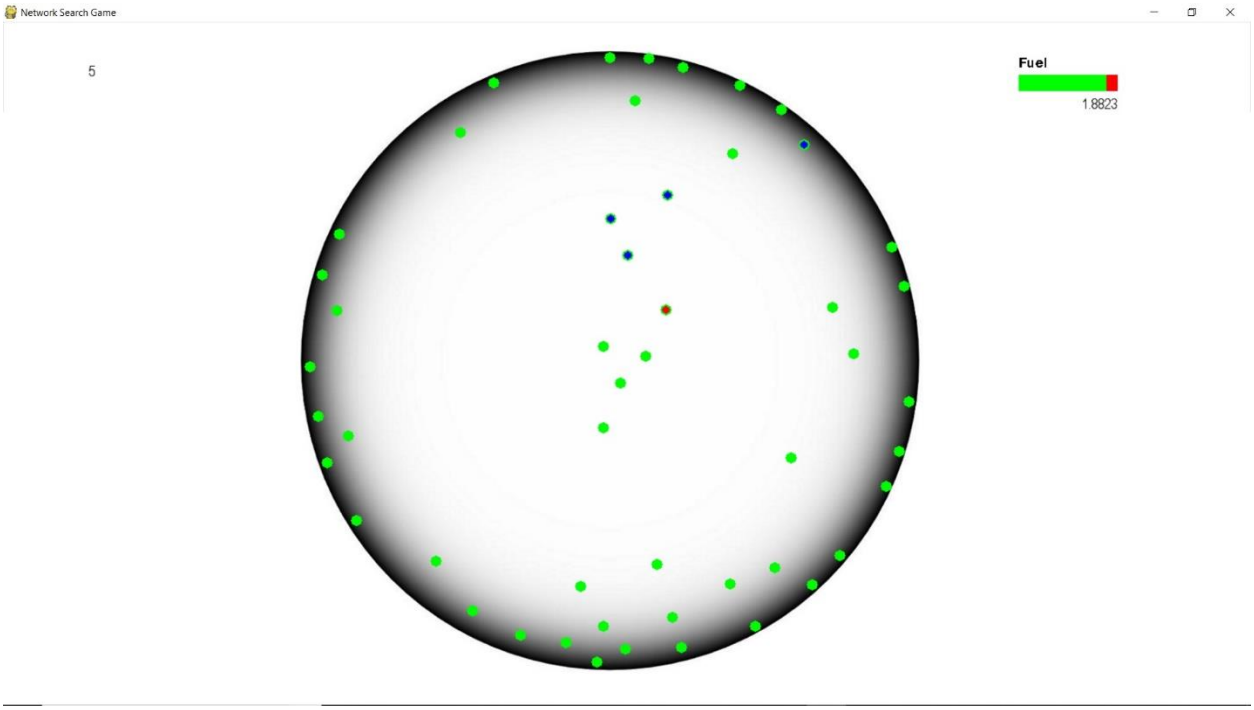
Orienteering in Hyperbolic Geometry

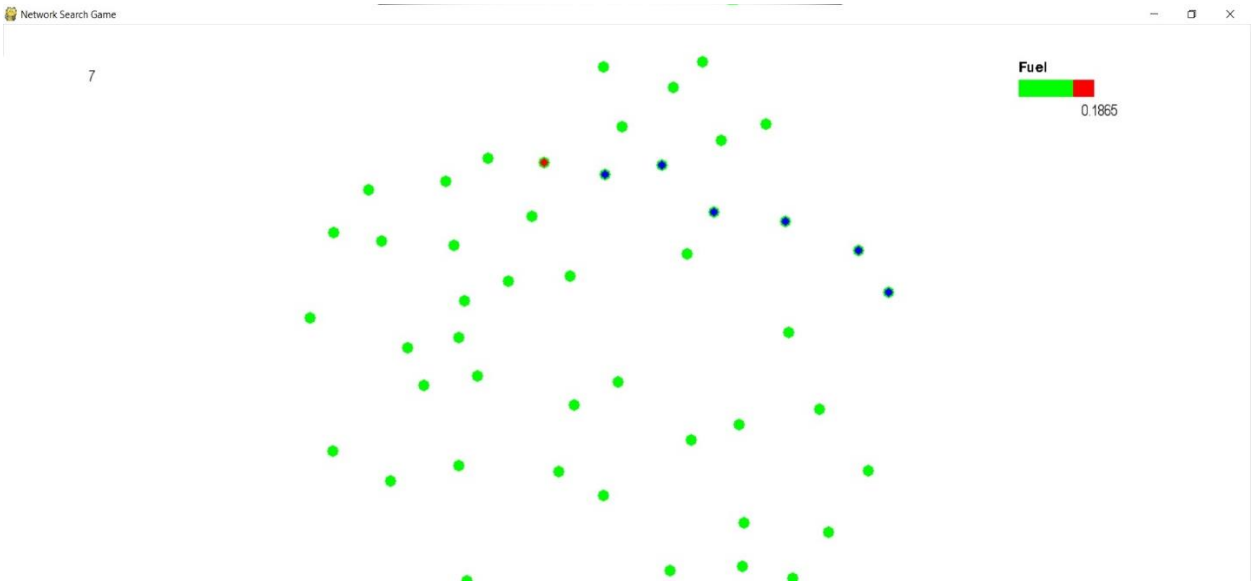
Protocol

Thank you for coming to participate in this study. You will be involved in an experiment that has two parts. Each part will be a repeated version of the last and will include two conditions. You will be playing a simple search game in every part and the two conditions in each part will be a different version of the game. Your goal as the participant will be to try your best to get the highest score possible. Below are the layouts of the two different versions of the game.

Version 1



Version 2



For each version of the game you will have your score at the top left. Your score goes up for every new node (green) visited, done so by clicking on the node. A node will turn red, indicating that you are currently on that node. Previously visited nodes will turn blue and unvisited nodes are green. You can revisit nodes, but your score will not update, the score will go up for every new node visited.

Traveling nodes will cost you some fuel and at the top right you will see a fuel bar to indicate how much fuel you have left. While planning what node to visit (click) next, you can hover over nodes to see how much fuel it will cost you to visit. That value will be displayed right below the fuel bar and it will change as you hover to new nodes.

In Version 1 of the game you will see a map on the background. The colors on the map will indicate how much fuel it takes to travel between those nodes. Think about the black sections as sludge. Even if two nodes are close to each other, the amount of sludge between them will greatly affect how much fuel it takes to travel. On the other hand, two nodes that are far apart but with only white in the middle will have a really low amount of fuel needed to travel.

In Version 2 of the game there will be no map. The amount of fuel it takes to travel between nodes will be the directly dependent on how close they are on the screen. If they are close, then it will be low fuel cost but if they are far apart it will be a high fuel cost.