

Telepresence

A Studios

The problem

Our mission is to promote fairness and equity for all

- We believe no one should be denied the opportunity to explore due to limited mobility. That's why we strive to provide the necessary tools and resources to give everyone with reduced mobility the chance to discover something new.



Brainstorm

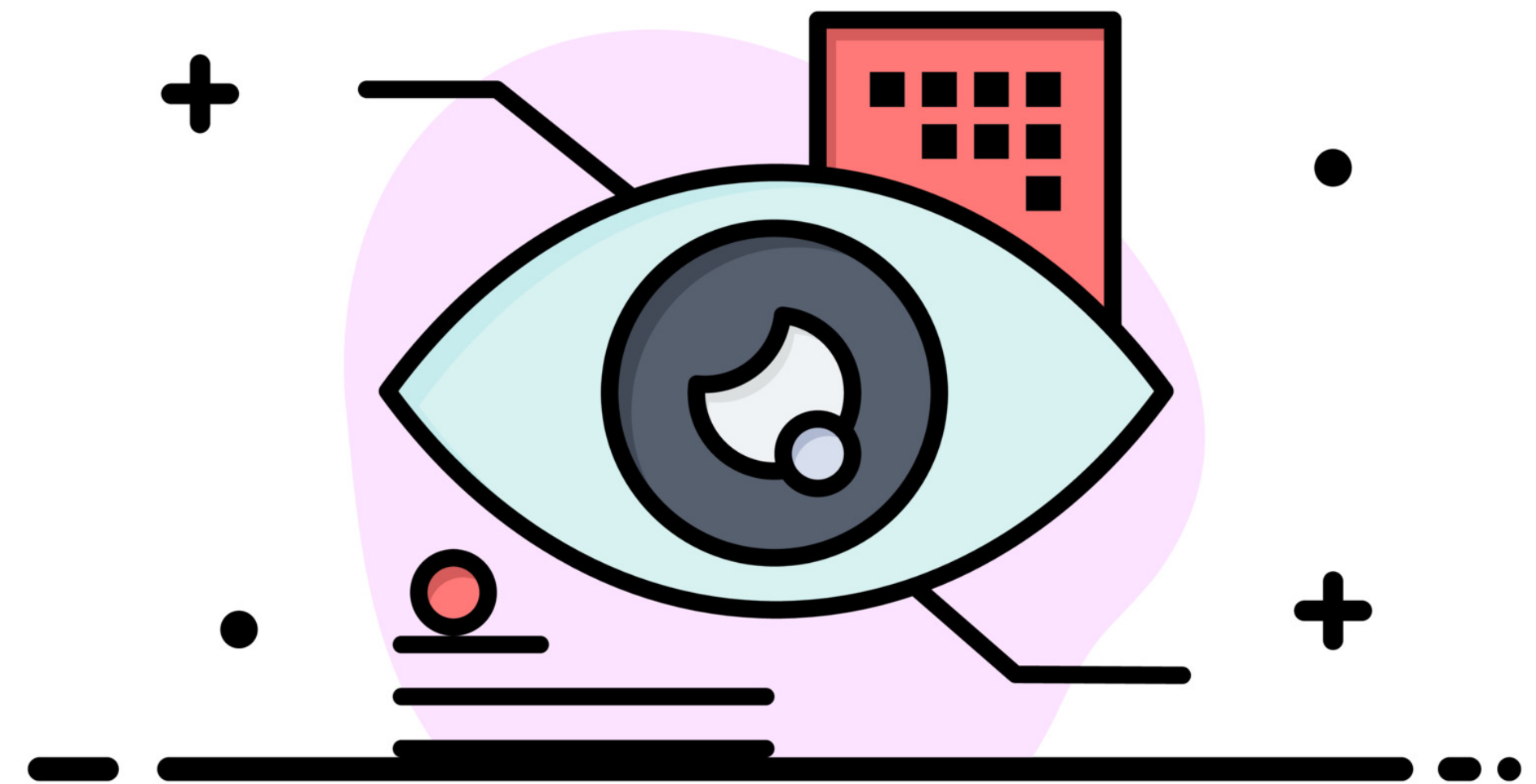
The choice of the idea

- Upon receiving the guidelines for the project, we quickly recognised that someone with limited mobility must be provided with a chance to explore. Accordingly, we adjusted our approach to give them the opportunity to do so.
- We introduced a streaming system wherein users can remotely view the camera feed of a robotic device using their phones or PCs. Furthermore, they can also control and give instruction to this robotic system through the same interface that provides access to its camera feed.

Getting depth

The main point of the project

- The concept is to provide those who have limited physical movement the opportunity to explore any kind of area through a robotic device. This would allow someone to virtually control and operate a robot with an attached camera, thus allowing them to inspect places they wouldn't be able to visit.

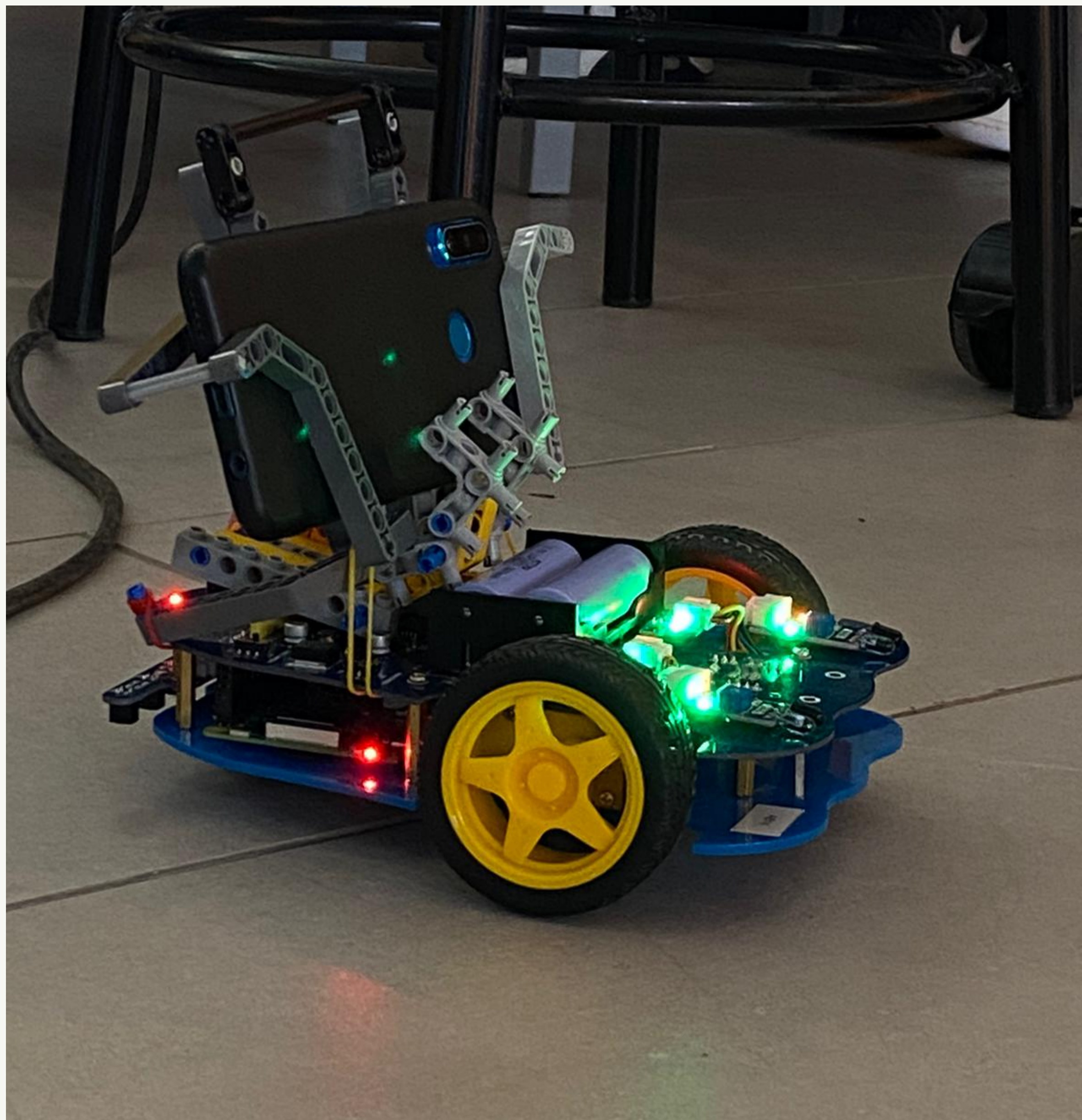


The robot

Alpha-Bot

- To accelerate the project development process, we decided to use the Alphabet in combination with Raspberry Pi as the interface since there is an existing familiarity with them.
- In conjunction with the Alphabot, we decided to use the Muse headband for obtaining brain impulses as signals to control its movement - going left or right using the gyroscope integrated within the device.





The Code

Python + HTML5 + CSS

- We decide to use python, HTML5 and CSS since there was already some knowledge in them, which enabled us to move quickly when creating the project.
- Our system consists of a client application running on the computer for streaming purposes, and a server on the robot which we have connect.

Thank You

We aspire that our concept can be of assistance to someone.