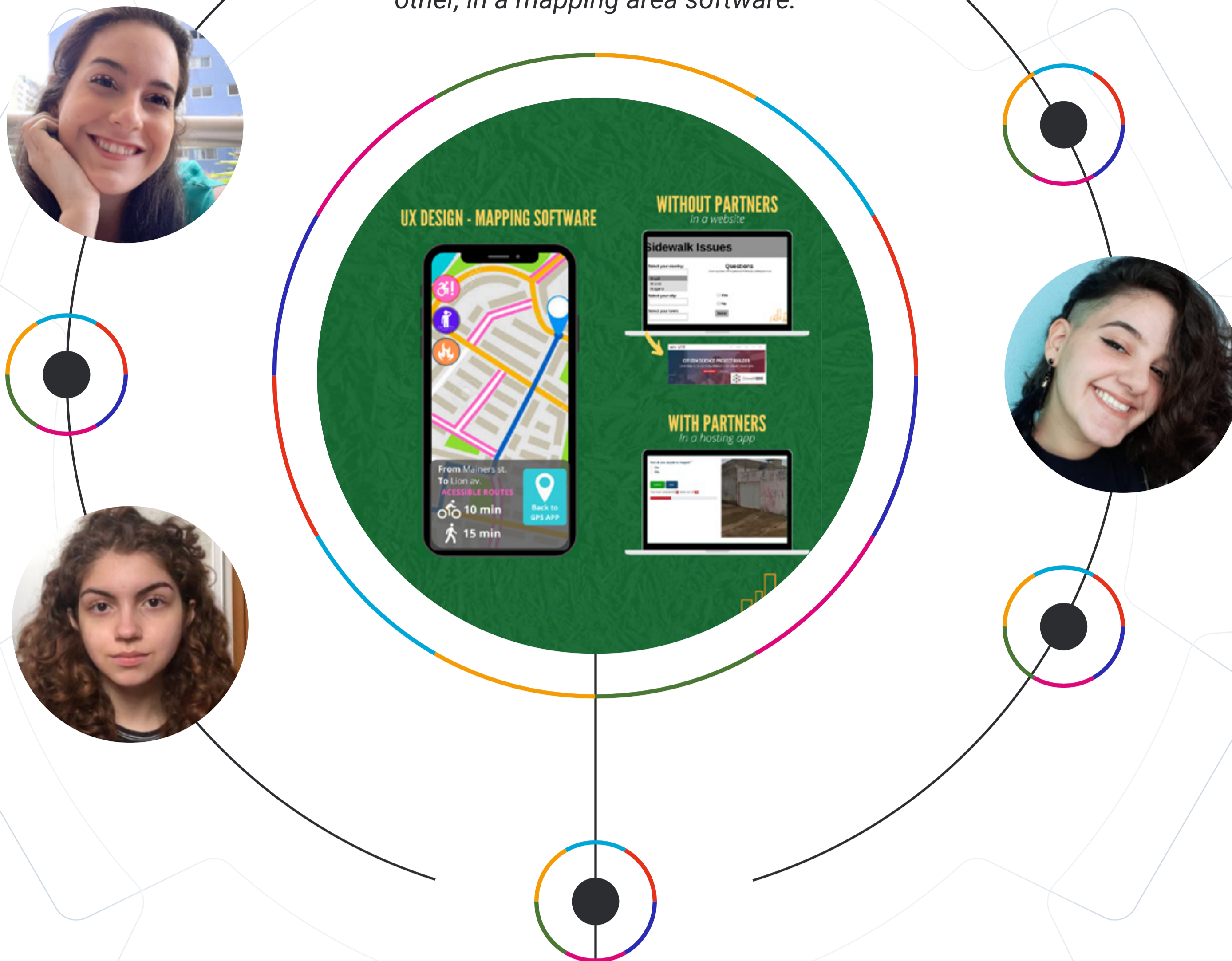




A two-parts project: one consisting in an ecological sidewalk and the other, in a mapping area software.



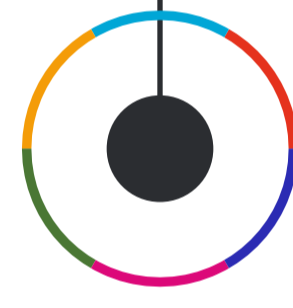
Objective of the project

The objectives of the project are: to abolish environmental and social issues related to current sidewalks (flood, heat, lack of accessibility and violence against women), to accomplish the 2030 Agenda by pressing physical improvement in current sidewalks with the collected data and to create a more walking society.



Problem addressed

Sidewalks are an essential part of urban cities' mobility, or at least it should be. According to the Brazilian Statistics Institute, there are 4 citizens for each car in Brazil, which expresses the lack of encouragement to walk on the streets. That is, current pavements are commonly forgotten factors of high rates of flood, heat and lack of accessibility, promoted by their low quality. Additionally, sidewalks are areas of violence against women, issue that also need data collection. This illustrates the necessity of mapping current sidewalks to replace and/or improve these infrastructures to approach the SDGs 5, 11, 13.



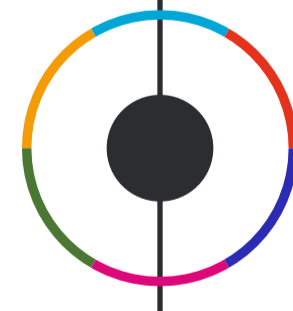
Solution proposed

We propose a model of ecological sidewalk produced with less amount of cement, which is substituted by scrap tire and sisal (two recycled and durable materials, that also increases the porosity). Besides that, we prototyped a mapping software to assist the community by tracing the best route for the user to walk to their destination, avoiding the obstacle selected by them, which improves the quality of life of people with disabilities, elderly and women, since they can feel safer in the streets. Furthermore, women can see, in the software, where is the most dangerous area to walk alone, since they are commonly susceptible to the issues tackled. These two-parts are fully independent, but we plan, in the future, to demand sidewalk changes/improvements from authorities (i.e. replacing them with our ecological one).



Expected impacts

With a future partnership with a gps app, we intend to show the safest routes for the citizens, mainly for our target audience (people with disabilities, women and the elderly). Besides that, our program will be able to show the authorities precarious sidewalks or even the areas without them so that we can press the government to change this scenario and increase our Ecological Sidewalk as well.



Current state of development and What is the project looking for?

About the physical part of our project, we already developed the sidewalk and it is being used in a part our previous school. About the software, we made a prototype of it with and, without the expected partnership with a GPS app, we created a project in CS Project Builder with questions in portuguese (since our first target audience are brazilians) about the accessibility of some sidewalks from Brazil, but it is still in the test phase because we didn't send it to get the approval of the plataform.

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