Smart Parking Team
Project Proposal

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Problem/Solution

Parking in WSU is much more difficult than one would imagine with so many different lots and not knowing if all the spots are taken or not and continually searching for available spots for longer than expected and walking from a further location as well. We are proposing a method of monitoring available parking spots and notifying the driver with an app or webapp that can display the specific spot open.

Options in implementing solution

Detecting whether a parking spot is empty or not could be achieved using different methods like infrared sensors, pressure sensors, cameras, surface mount sensors, and/or wireless ultrasonic sensors. With the CS team on board, being able to display to the user on their mobile devices where the open spots by relaying the information to an app or webapp as close to real time as possible. As a group we will evaluate every option to find a suitable method with respect to environmental conditions, engineering practices, safety, regulations and so on.

Expansion

With the prototype mostly representing the final choices, using a Time of Flight and a Magnetometer sensor connected to an Arduino MKR WAN 1310, the rest is verifying the choices made and move on to the final packaging that will include a battery and a casing that will work with all the sensors and reception. This will represent a package that can be installed.