SHARING

- We presented our innovative solution with Karen Whitney, director of community development, York University

- We taught different programming sessions to new and returning teams at the FLL kickoffs at Bayview glen
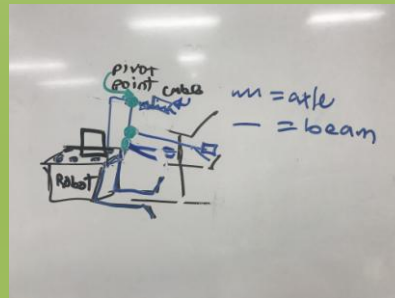

- We taught programming techniques at St. Mildred-Lightbourn school.
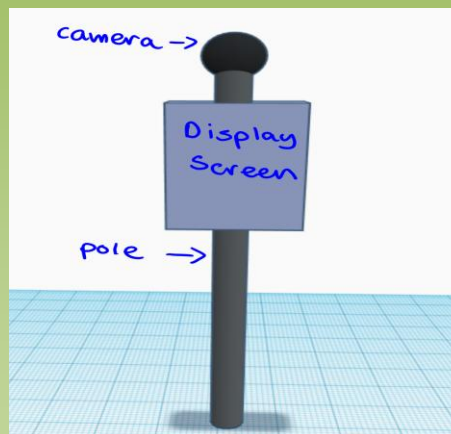

- We talk with Adamo Donatucci, Regional Vice-President of Indigo Parking Canada
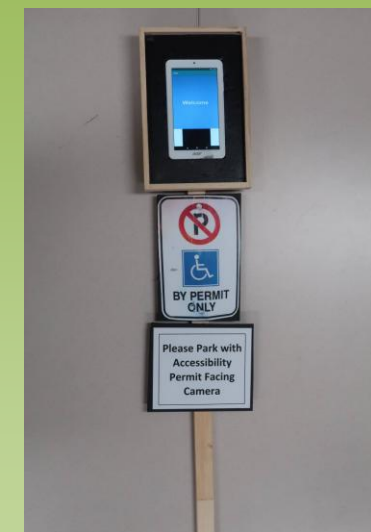

- Our sketch of our prototype:

- Our 3-D prototype design:

Ctrl-Z Bayview Glen
FLL Team #5831

Visit:
- (a) our website at **https://fllctrlz.github.io/ctrlz/**
- (b) our presentation at: **https://youtu.be/V2wEoIf6S3o**

PROBLEM IDENTIFICATION

The problem we are addressing is accessibility. People without accessible parking permits are parking in designated spots and blocking access to those who require them. This prevents people with disabilities and many seniors from leaving their homes, leading to isolation and immobility. We need a way to ensure accessible parking is available to those who need it.

Sources of Information
We have consulted with experts and referred to articles and websites

EXPERTS

Mrs. Karen Whitney,
Director, Community Planning and Development, Planning and Economic, Cooperates Services York Region, talked about how our solution would ensuring accessible parking for those who need it promotes safety for those individuals. They can park and have less distance to travel, rather than parking further away and risking injury.

- **Mr. Craig Lane,**
HCMA Architecture + Design, Vancouver, Canada, shared his insights on how making public spaces more accessible will encourage more people to be active in their community. He shared that our solution would insure people with disabilities and seniors would have access to close parking to entrances of public spaces.

- **Prof. John Zelek,** Associate and Professor and Co-Director of the VIP (Vision Imaging Processing Lab) Ontario, Canada, encouraged to potentially use the data collection to allow property owners to optimize the number of accessibility stalls in there parking lots.

- **Mrs. Kim Huntley and Eda Conte-Pitcher,**
Library Service Manager of the *Toronto Public Library* informed us better accessibility parking solutions at the library will encourage people with disabilities to leave their homes and visit the libraries.

- **Prof. Brenda Vrklijan,** Professor, Occupational Therapist, McMaster University, advised us that our original idea, a buzzer to prevent people from parking in those spots without a permit would cause stress and scare people nearby.

- **Mr. William Wiles,** Parking Operations Supervisor at York University, had suggested that in the future, we could use our solution to help the problem of people parking in front of fire routes.

- **Mr. Adamo Donatucci,**
Regional Vice-President of Park Indigo Canada suggested that in the future, we also need to find a solution if someone backs into the spot.

SELECTED REFERENCES
- The City of Toronto, Permits – Accessible Parking Permits - parking exemptions and holder responsibilities
- CITYLAB, Teressa Favuzzi, Solving Disability Placard Abuse – Is There A Technological Solution?
- New Atlas, Ben Coxworth, Tech solution developed for disabled parking abuse, 29 December 2011

EXISTING SOLUTIONS

Dislife's "More Than A Sign" Solution helps to keep people without permits to park in these accessible spots.
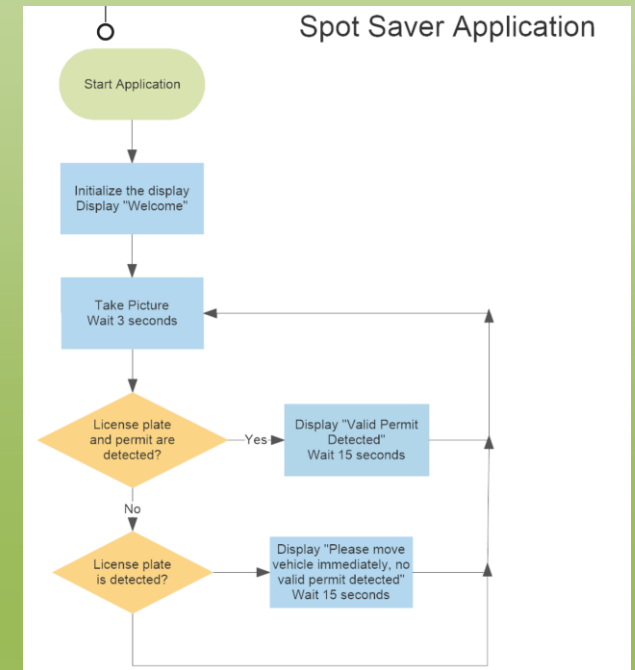

STOP!

INNOVATIVE SOLUTION

OUR TEAM'S SOLUTION

Our solution will ensure access to parking that will lead to greater levels of physical activity and interaction with others, resulting in improved mental health and longevity. The Spot Saver features a camera located at the top of a post in front of the accessible parking spot to check for the presence of a valid permit. If detected, the Spot Saver will indicate this on a display screen and a green light will appear. If not detected, a message saying "No Valid Permit Detected", and a red flashing light will appear. If the unauthorized vehicle has not moved within 3 minutes, the camera will record the license plate and the owner of the vehicle will be fined.

INNOVATION

- Our solution is a pole with a camera located on the top of a pole to detect the presence of an accessible parking permit on the dash of the car.
- It can validate if you if you are able to park in the accessible spot with sensing an accessible permit.
- It will allow people with disabilities and seniors to be able to find a parking spot closer to the public space entrance

HOW THE SPOT SAVER WORKS:

The Spot Saver has 2 main parts to it. There is a camera located on the top of a pole in front of the accessible parking spot to detect the presence of an accessible parking permit on the dash of a parked car. If so, a message saying, "Valid permit detected." with a green light will appear on a display screen below the camera, indicating a legally parked vehicle.

If there is no permit detected, a message saying, "No valid permit" and a red flashing light will appear on the display screen. If a vehicle has not moved within 5 minutes, the camera will record the license plate and a ticket will be mailed to the vehicle owner.