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Student-created parking app concept wins 2022 Koch Innovation Challenge

By Tessa Karbowski, Strategic Communications intern

Three Wichita State University freshmen created Everwhen, meant to be a low-cost and time saving way to identify which available spots in parking lots.

Three Wichita State University students were named the champions of the 2022 Koch Innovation Challenge with their idea to ease parking frustrations via an app called Everwhen.

Grant Johnson, a freshman in computer science from Wichita; Carly Overacker, a freshman in engineering technology and civil engineering from Tonganoxie, Kansas; and Jonathan Colamedici, a freshman in aerospace engineering from Clark, New Jersey, teamed up this semester as part of a project in their Innovation and Technology Seminar course. They then submitted their concept — called Everwhen — as part of WSU's yearly [Koch Innovation Challenge](#).

The invention

"The idea for Everwhen came from the struggle that we all endure: campus parking," Johnson said. "That sparked the idea for an app that can tell you where open parking spots are."

The idea behind Everwhen is to attach sensors to pre-existing cameras in parking lots. The parking spots would have a symbol painted on the surface of the asphalt. The painted symbol becomes a sort of target that the camera can then track. Using targets instead of cars protects privacy and limits the variables, such as reflectiveness, that would interfere with the sensors.

The team's goal is to use this technology for business clients.

"With this background knowledge in mind, by seeing where the targets are visible, we can find where the cars are and where the cars aren't. With such data, we can then process that into an interface to be able to give a live updated map of open available parking spots at a glance," Colamedici said.

Everwhen is an AI-recognition software that can be implemented with existing security cameras. It scans the parking lot for open spots and transfers that data over to the app.

The cost and benefits

Everwhen is more cost effective than other ideas on the market.

"Our product is unique because it integrates with the preexisting systems, so it doesn't require expensive installation or maintenance, and can be easily modified to fit any parking lot," Overacker said.

"There are similar products on the market but none that are as cost efficient as Everwhen. Most of our competitors use in-ground or above-ground magnetic sensors, while ours can be easily implemented into pre-existing security cameras," Johnson said.

The cost is also minimal because the software can be integrated into pre-existing security cameras.

Another consideration is the environmental impact of this invention. By reducing the amount of gas spent searching for a spot, drivers will not only save money on gas, but it will also be better for the environment.

Becoming student innovators

Through this experience the team has learned what it means to innovate.

"Being an innovator means learning how to connect the dots to make the connections that others may not have seen. It is essential to understand that everyone is innovating in their own way, even if it is as simple as a food combination. We are in a world of innovators, and that is one of the most beautiful things to admire," Colamedici said.

The importance of having students innovate is that they can see the benefits of their invention.

"Innovating means to create or redesign something that will be beneficial to others. It's the idea of doing something unselfishly in the hope you can make somebody's life even a little bit easier," Overacker said.

The next step

To realistically implement this concept, testing and refinement is necessary, the team says.

"We are still in a prototyping phase, and before we feel comfortable with how this is implemented, we need to ensure that our system has the accuracy that we would expect it to," Colamedici said.

Throughout each round of the Koch Innovation Challenge, the team was awarded a total of $1,500 in investment capital/scholarships and given the chance to work with a faculty innovation mentor.

Now as the winner of the competition, the Everwhen team has been awarded a grant to attend the national Collegiate Entrepreneurs' Organization Conference and compete in the National Elevator Pitch Competition.

They weren't the only students with great ideas. The other teams that made it to the Grand Champion round of the Koch Innovation Challenge were:

- ELEMENT, a remote-controlled defroster shield to easily remove ice from windshields. Team members: Dylen Trecek, Nehme El Ters, Warren Balthazor and Wesley Horner.
- Spoon Savor, a cooking tool to reduce messes in the kitchen. Team members: Claudia Diaz, Cooper Larsen, Izzy Panakos and Madelyn Stilwell.
- Open Color, a wearable camera that turns color into -sounds for the visually impaired. Team members: Mason Garten, Noah Carter, Kobe Simmons and Wiley Hutcheson.
- Safe Heater, a battery powered portable heat source for cold-weather camping. Team members: Drake Mann and Noah Osborne.
- Dual-Shock Wallet, a convenient wallet for multiple ID cards and RFID key fobs. Team members: Adam Key, Ben Taxdahl, Ridge Estes and Craig Belto.