



Continuing Community Engagement through Expanded Powered Mobility for Young Children with Special Needs: Go Baby Go! Milwaukee Improvements and Modifications



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Go Baby Go! (GBG) is a nationwide community-based design and outreach program that provides modified ride-on cars to children 9 months to 5 years of age who experience limited mobility. GBG! is an open-source program that was started at the University of Delaware by Dr. Galloway and provides cars to families at no cost.

Dr. Galloway started the program because of a desire to provide children with limited mobility or cognitive delay an opportunity for independent mobility at a young age. Research has shown that independent mobility leads to an increase in a child's social-emotional, cognitive, and motor skills. In this project, toy ride-on cars are modified technically and therapeutically to fit the specialized needs of each child. Examples include a therapy switch in place of a gas pedal, joystick control instead of a steering wheel, head and body support, custom harnesses, and padding to ensure a stable posture.

260 Cars Built to Date

Room for Improvement

The GBG! MKE team is constantly working on improving the GBG! MKE program and family experience. This effort started in 2019 with a family satisfaction survey completed by the GBG! MKE families. Based on the 2019 recent survey, several challenges were identified including the following:

- 60% of children experienced difficulties driving a self-steer car due to cognitive delays and/or physical limitations.
- 27% of children were startled by the initial motion/start-up of the car.
- 27% of families experienced difficulties transporting the car in their vehicle.

Acknowledgment

The GBG! MKE team would like to extend a special thank you to James Friel from the Department of Recreational Sports at Marquette University who made the GBG! MKE Open Gym possible. We also sincerely thank OREC/MU,MCW and Children's Foundation for ongoing financial and technical support of the program.

We would also like to recognize our many generous donors because without their support we would not be able to provide this large number of cars at no cost to the families of Southeast WI.

Going Forward

Going into 2023 the GBG! MKE team will continue working on improving the GBG! MKE family's experiences include:

- Continued research into Joystick Driven Vehicles.
- Sending the 3rd family satisfaction survey.
- Expanding the GBG! program to the Fox Valley Region.
- Offering the 4th family picnic.
- Continued improvements to the vehicles.

2018

2019

2020

2021

2022

Picnic



In 2018 the GBG! MKE team had our first GBG! MKE family picnic.

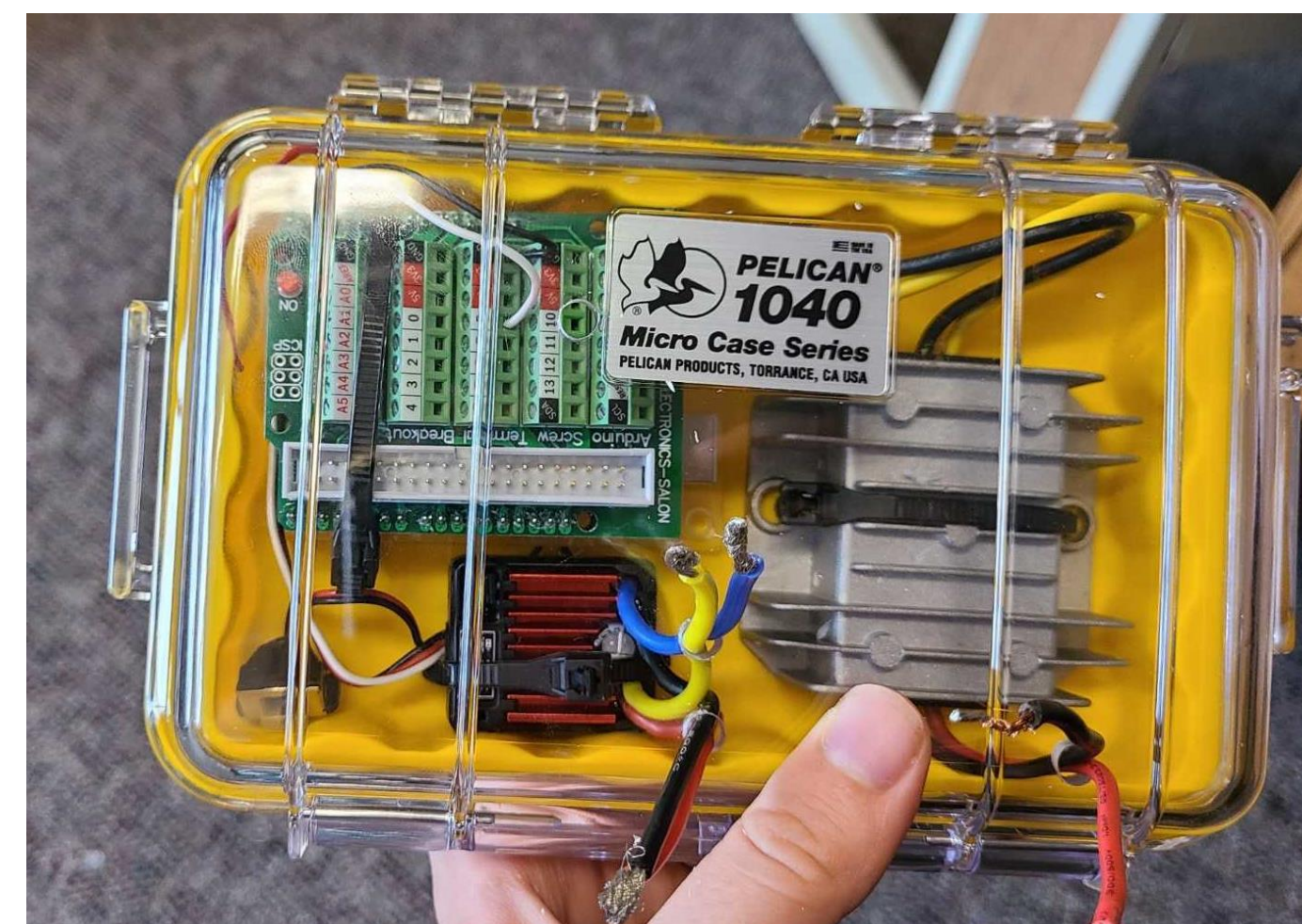
Each GBG! MKE family was invited to attend, and the team sets up games, activities, a racetrack, and a podium where the children could drive their car and meet other kids with cars like theirs. It was also a great opportunity for families to meet. We have since hosted two others in the summer of 2019 & 2022.

Remote Car

In 2019 the GBG! MKE team started producing remote control cars. These cars are wired so that the child has to be pressing the adaptive switch and the parent has to be pressing the forward/backward button on the remote at the same time for the car to move. This keeps the child actively engaged with the motion while addressing the difficulties children were experiencing with the self-steer car.



Acceleration Controller



In 2020 the GBG! MKE team started to offer an acceleration controller microprocessor system for self-steer vehicles. This system was designed to slowly ramp the speed of the car up from zero to full power. This ramp-up is much slower than the car's internal systems and was designed to address startle reactions resulting from initial car start-up.

Open Gym

In 2021 the GBG! MKE team started offering open gym time to families. This gym time is offered three days a week and is an opportunity for GBG! MKE families to use their cars indoors during the winter months. This will be offered to families again in 2022.



Student Engagement

In 2021 the GBG! MKE team worked to increase student engagement. The team started to allow Marquette University engineering PT, and OT students the opportunity to watch GBG! fittings and learn about the clinical side of the program.

Additionally, the OREC/MU,MCW team started offering engineering students the opportunity to practice their hands-on skills by completing mechanical and electrical modifications of the car under the guidance of the GBG! MKE engineer.

Joystick Driven Vehicle

In 2022 the GBG! MKE team hopes to start research on a joystick-driven vehicle. This vehicle will have a much smaller footprint and be much lighter than earlier cars to help families more easily transport the vehicle. The vehicle will be built, wired, and programmed to respond in a manner similar to an electric-powered wheelchair with research focusing on the joystick control.



Facebook Group

In 2022 the GBG! MKE team worked with a GBG! MKE mom to start a Facebook group where the families could post about their children, ask questions to other families with shared experiences, or provide feedback on the GBG! MKE program. In just a few months the group has almost 40 members.