Registration Form

TEAM INFORMATION

Team Name/Project Title: Big Kidz – Early Intervention Device

Department: Bioengineering

Faculty Advisors: Casey Howard, Steve Lammers

Team Members: Gabriel Martinez Sanchez, Ben Ernst, Sammi Muse, Dylan Carlson

PROJECT INFORMATION

Description:

A cost-effective, power-mobility device is needed to improve cognitive development and mobility for disabled children.

Abstract:

Neurological deficits, such as cerebral palsy, spina bifida, and anoxic or traumatic brain injuries, cause children to be unable to keep up with the mobility and cognitive developments of a normally functioning child. These children rely heavily on others for travel, such as being carried or being pushed in a stroller; therefore, they have no independent movement required for cognitive development. Research has shown that children able to control exploration and interaction with their environment show increased improvement in cognitive and social development, speech, and motor control than when carried or pushed in a stroller.

The current standard of treatment includes GoBabyGo, modified PowerWheels vehicles, or expensive power-wheelchairs, which are not covered by insurance. A cost-effective means of mobility is needed to allow the children to explore their environment independently.