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**IdeaLab** is a program designed to link unique problems and challenges with creative and technical problem solvers at RIT.

**Studio930** is a design consultancy offering collaborative and interdisciplinary opportunities for students to work on accessibility and medical care challenges.



# Content

- Adaptive Kitchen Knife
- All-in-One Crutches
- All Terrain Walker
- Band Toy – Otto
- Bedside Table
- Clean Bio-bag
- Dressing Challenges
- Dynamic Arm Support
- Easy Blood Glucose Sample Device
- EZTP
- Exam Room in a Bag
- Exercise Balance Machine
- FlexHex Table Height
- Help Dress
- Hospital Food Experience
- Hospital Shroud
- Improved Fastening for Ankle Foot Orthotics
- Improved Wheelchair users' Room Proprioception
- Infant Exam & Transport Platform
- Interior Design, Health Center
- IseeU: A Patient-provider Connection
- LEV
- Lightweight Wheelchair for Easy Storage
- Orthotic Standing Device
- Pediatric Stander
- Portable Food Prep System
- Portable Toilet
- Remote Control Bicycle Breaking System
- Rwanda Wheel Chair
- Secure Glucose Monitor
- Shopping Cart Child Seat Insert
- Shopping Storage for Power Wheelchairs
- Smart Exam Room
- Smart pants-up
- Smart Rug – Lilli Pad
- Speculum Redesign
- Spynalign
- Thermapparel
- Toilet Paper Dispenser
- Universal Lavatory
- Vestibular Schwannoma
- W-uber, Wheel chair on demand
- Wheelchair Weather Protection
- Wheelness



# Pediatric stander

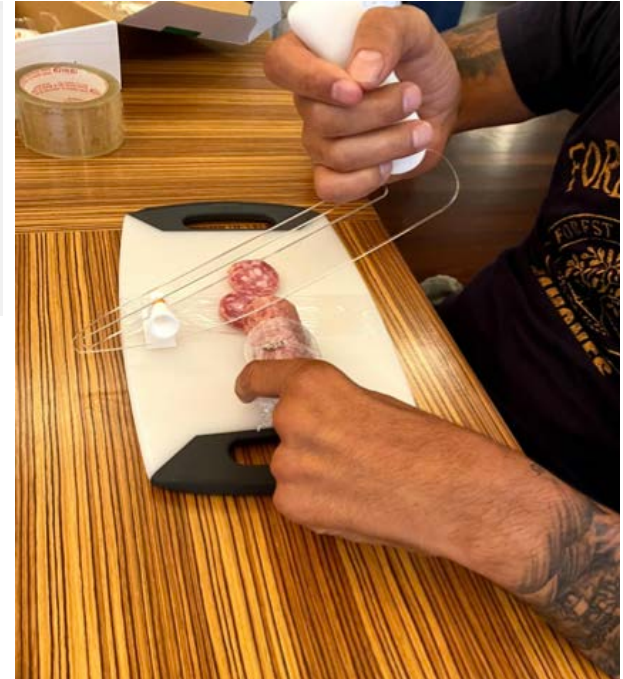
*A mobile standing device for children with mobility, balance and fatigue difficulties.*





# Adaptive kitchen knife

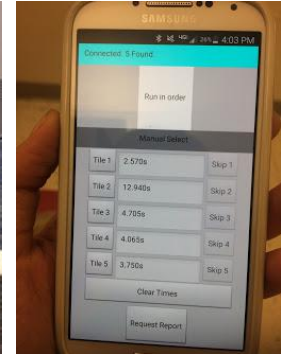
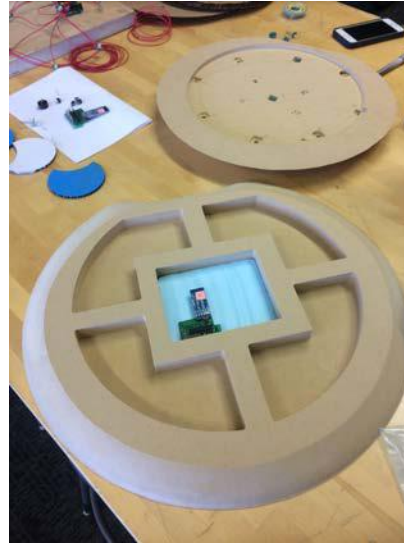
*A special tool for cutting, slicing, and chopping for individuals with limited fine motor function, grip strength, or finger dexterity.*





# Smart rug/Lilli pad

*An interactive playful system designed to guide and engage children with varying developmental disabilities such as Autism and Down syndrome.*



## Product Functions





# Infant exam & transport platform

*An infant/newborn exam and transport platform using specified mattress size for pediatric full hip and other assessments under a warmer.*





# Remote control bicycle braking system

*A solution for a caregiver to provide remote braking to individuals with special needs that have unpredictable reaction times and braking abilities while maximizing their independence.*







# Rwanda wheelchair

*A robust, low-cost, sustainable, repairable wheelchair for children with mobility impairments in Rwanda. Design uses locally available materials.*







# Wheelchair weather protection

*An easily deployable and storable solution for protecting wheelchair users from precipitation and excessive sunlight.*

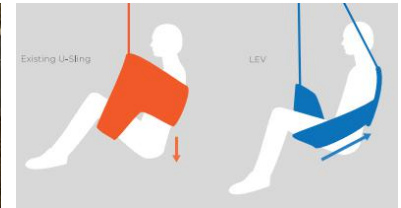


*Canopy mechanism solution to be attached to any wheelchair*



# LEV

*A secure and ergonomic sling for lifting individuals with physical limitations from a wheel chair into a sit-ski.*





# EZTP

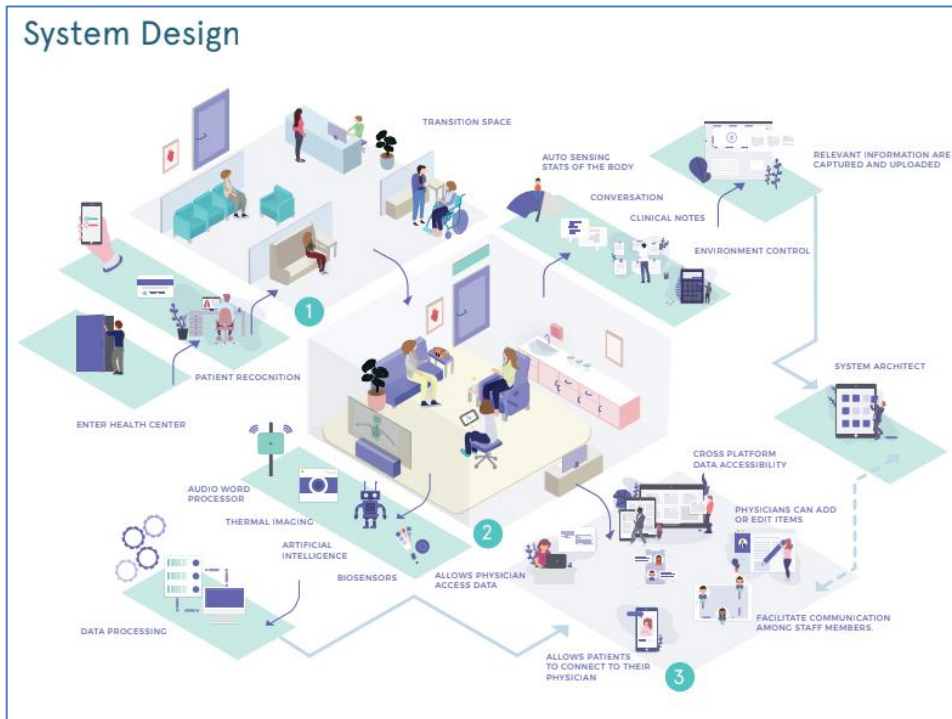
*An automated toilet paper dispenser for individuals with mobility or behavioral challenges.*





# Smart exam room

*An exam room that leverages the latest technologies to enhance patient-doctor interaction and visit experience.*

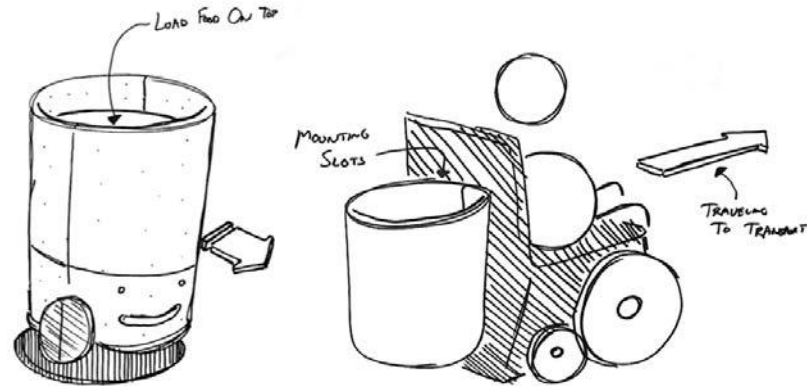






# Shopping storage for power wheelchairs

*An easy to use design solution for an individual using a power wheelchair in a store. The solution (unavailable for these chairs) allows storage and safe transport of multiple items to the car.*







# Bedside table

*A novel, elegant bedside table design that addresses the need for more surface and can be pushed aside to allow more access to the patient.*







# Shopping cart child seat insert

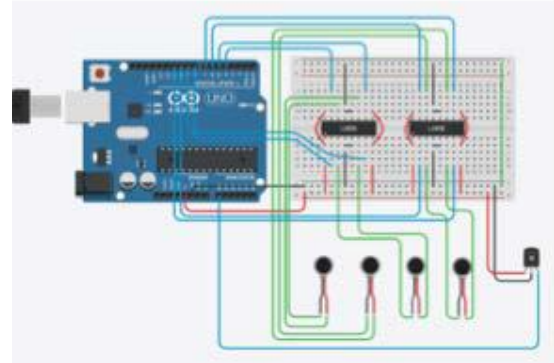
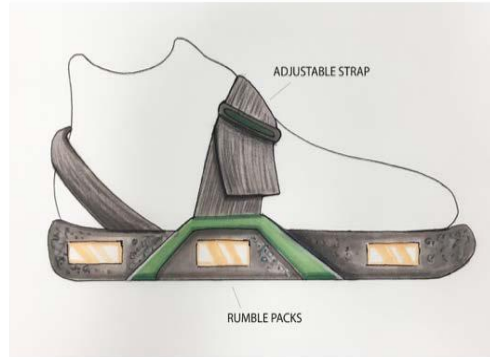
*A portable and convenient seat adapter for conventional shopping carts that provides body support for a child that lacks core tone.*





# Improved wheelchair users' room proprioception

*A stimulating system for wheelchair users experiencing altered proprioception in a space compared to none wheelchair users. The system helps reduce orientation difficulties and interaction with objects in space.*





# Easy blood glucose sample device

*This design helps individuals with low dexterity (due to diabetes or tremors) obtain blood samples with relative ease and independence.*





# Portable food prep system

*For individuals with dietary restrictions and for those who bring food with them on the go. Designed for preparing warm or cold meals.*





# Portable toilet

*A portable system that can be moved close to the user to mitigate fall risk in clinical and long-term care environments.*





# W-uber

Wheel chair on demand

*An app that helps coordinate wheelchair assistance with emphasis on timeliness, efficiency and communication, in order to reduce uncertainty and increase satisfaction among patients, volunteers and staff.*

## App Elements:

- Tracking
- Indoor Map Navigation
- Availability of Volunteers and Wheelchairs
- ETA
- Patient Last Name, Room Number
- Time Elapsed Since Request
- Ability to Cancel
- Account/Login
- Notifications







# Thermapparel

*A slim, discreet, apparel with a cooling ability that allows MS patients to control their heat sensitivity symptoms.*







# FlexHex table height

*A modular table system that adapts to and accommodates the needs of all users around it and eliminates potential social disadvantage.*





# Spynalin

*A postural control device for stroke victims that alerts users by vibration or sound when they lean outside a specified threshold.*





# Dressing challenges

*A solution for individuals with cerebral palsy to dress themselves independently.*





# All-in-one crutches

*An all-inclusive rehabilitation system for MS patients that incorporates features of walking, forearm support and crutches while reducing social stigma.*

