Introduction

For over 25 years, Switch It has been helping persons with disabilities achieve mobility through alternative drive controls for powered mobility. Our team of engineers and rehab professionals works closely with power wheelchair manufacturers, rehab clinicians, and our extensive network of rehab providers to make our products the most advanced and most appropriate in the market today. We continue to evolve by exploring new technologies and applying them to mobility applications.

Our philosophy of bringing smart technologies to powered mobility in order to help persons with disabilities regain mobility and independence has served us well over the last quarter century and will continue to do so as we grow and help the powered mobility community globally.

Mark Parker
Founder

Company History

Switch It began by helping those with disabilities using technology. It started with our industries first head arrays, mouse controllers and single switch scanners. Before this some were without the ability to interact with their environment through the use of a powerchair. Our next steps were miniature joysticks, capacitive touch screens, and the Drive Station, the only true game controller for a powerchair.

Our current step is improving head arrays using new and innovative sensor technologies.
Proportional Drive Controls

Switch-It Proportional Drive Controls give the driver the ability to operate their wheelchair with a full range of acceleration and deceleration, a 360° turning range, and veering control. They work in a plug and play fashion, and are compatible with the majority of power wheelchair manufacturers’ electronics, including Sunrise Medical’s and Permobil’s R-Net, Quantum’s Q-Logic, and Penny & Giles.

**HEAD CONTROLS**

**DUAL PRO**
- Truly proportional drive control that enables users to quickly and easily adapt to driving with a head array
- Sensitivity and the force required to activate the head array can be customized and adjusted to each end user’s strengths and capabilities
- Left and right pads can be individually adjusted, allowing for smooth driving for users who have varying levels of head control on their left and right sides
- Convenient programming from the back pad allows for simple setup and in-field adjustments with the client in the wheelchair.

**PROPORTIONAL HEAD CONTROL (RIM)**
- 3-direction proportional joystick integrated into a headpad that can toggle between forward-left-right and reverse-left-right setup, either through mode-reverse switch or a quick tap of the backpad, depending on the chair electronics.

**JOYSTICKS AND OTHER CONTROLS**

**TD2**
- Based on simple touch, not pressure
- Intuitive and proven cell phone touchscreen technology
- Two drive setting options available:
  - Absolute proportional is based on where you TOUCH on screen.
  - Relative proportional is based on where you DRAG finger on screen.
- Built-in mode switch positioned over the logo on the screen that can be enabled or disabled based on the user’s preference or ability.

**COMPACT JOYSTICK (JSC)**
Full direction joystick in a compact housing that can be mounted as a chin, tray, or foot control.

**DRIVE STATION**
The DriveStation is the first and only wheelchair joystick mounted into a game controller that uses the integrated gaming joysticks for driving.
- PlayStation 2 controller is unmodified, maintaining the module’s integrity
- Switch-It module translates the controller’s outputs into signals the wheelchair understands for driving, seat functions, etc.
- Offers proportional controls through analog joysticks and switch controls through other buttons
- Buttons/switches can be assigned to dedicated seat functions

**MICRO SERIES MINI JOYSTICKS**

**MICRO PILOT (MP)**
- Force-based technology with virtually no joystick throw
- Dealer-accessible sensitivity adjustment
- Adjustable for approximately 10 to 50 grams of force
- Internal components are metal for outstanding durability.

**MICRO GUIDE (MG)**
- Size, durability, and easy mounting of the MicroPilot
- Stick throw (deflection) for clients that prefer the feedback of movement
- ¼” neutral to forward joystick throw with standard knob

**MICRO SERIES MOUNTING OPTIONS**
- Force-based technology with virtually no joystick throw
- Dealer-accessible sensitivity adjustment
- Adjustable for approximately 10 to 50 grams of force
- Internal components are metal for outstanding durability.
Switched Drive Controls

Switched Controls require less coordination and motor control. Each direction and speed is pre-programmed. Every Switch-It Switched Drive Control is compatible with every major manufacturer’s expandable wheelchair electronics, including Sunrise Medical and Permobil’s PG Drives R-net, Quantum’s Q-Logic, Invacare’s MKVI, Dynamic DX & DX2, and Curtis.

HEAD ARRAYS

Switch-It Head Arrays are the most versatile on the market today:

• Available in 3, 4, and 5 switch versions
•Compatible with various headrests, including Sunrise Medical’s Whitmyer®, Stealth, and Therafin
• Standard and custom configurations available
• Available in 3-direction or 4-direction
• Includes built-in dipswitch panel for turning sensors on and off during evaluation and/or training

The **FLEX-ARRAY PACKAGE** is a proximity sensor system specifically designed for clients who require different switch access locations to accommodate changing conditions. It includes 4 sensors and a headrest. The sensors may be placed in the headrest, adductor/abductor pads, or any other switch site accessible to the client. Quick disconnect attachments allow each sensor to be removed from the system for easy transfers.

Best for those with limited or no extremity function and are concerned about headrest

**COMBINATION SIP AND PUFF HEAD ARRAYS** offer improved control and veering by allowing the client to use the sip and puff function for driving forward/reverse, and a slight head roll for turning to the left/right. OptiStop fiber optic switch attached to straw will automatically stop the chair when both the switch and straw move away from the driver’s mouth.

OTHER SWITCHED CONTROLS

**LAP TRAYS**

Switch-It offers clear or black acrylic lap trays with either proximity or fiber optic sensors secured inside them. They are equipped with quick disconnect cables so the tray can easily be removed from the chair.

**CINCO SWITCH MINIPAD**

• Miniature pad with 5 dime-sized mechanical button switches
• Buttons can be programmed to control directions or seat functions
• Housing fits in the palm of a small hand

**TOUGH JOYSTICK**

• Heavy duty switched joystick
• Includes 4 or 8 directions and a built-in mode switch
• Can be used in conjunction with other switched controls if the user can only activate in one or two directions
• Ideal for someone with high tone

**Naked Systems**

• Proximity or fiber optic sensors not embedded in headrests, lap trays, etc

**COMBO SIP AND PUFF HEAD ARRAYS** offer improved control and veering by allowing the client to use the sip and puff function for driving forward/reverse, and a slight head roll for turning to the left/right. OptiStop fiber optic switch attached to straw will automatically stop the chair when both the switch and straw move away from the driver’s mouth.

Best for early intervention driving and/or those with the inability to drive with a joystick or head array

**CincoSwitch Minipad**

(HOT-5)

**Tough Joystick**

(TJS)

**CincoSwitch Minipad**

(HOT-5)
Switches, Controlers, and Devices

INDIVIDUAL SWITCHES

Switch-It provides a number of different individual switches, which can be used for parts of drive controls systems or for other functions, from simple on/off to mode to dedicated seat functions. Any 3 or more total switches can be used to build a switched drive control system (either 3 or 4 direction). We both manufacture our own and distribute other popular switches to complement our drive control packages.

Here is a partial display of some type of switches:

**Individual Mechanical**
- UniLite (Wobble Switch)
- Mini Button
- Buddy Button
- Micro Lite
- Egg Switch
- Piko Switch

**Individual Electronic**
- Adjustable Proximity
- Photoelectric Switch
- Proximity Switch
- Fiber Optic Switch
- Flex Switch
- Buddy Button
- Egg Switch

MULTI-FUNCTION SWITCHES

Switch-It provides a number of different multi-function switches, which can be used for parts of drive controls systems or for other functions, from simple on/off to mode to dedicated seat functions. Any 3 or more total switches can be used as a drive control. Here is a partial list of some type of switches:

**Multiple Function Mechanical**
- Dual Toggle Switch
- Mini Button 4 Switch
- Mini Button 2 Switch

**Multiple Function Electronic**
- Mini Button 4 Inline Switch
- Compact Switched
- Multiple Proximity Switches

OTHER CONTROLLERS AND DEVICES

**Remote Devices**
Our Remote Stop Switch allows an attendant to stop a chair being driven by the user via an RF remote from up to 100 feet away (depending on the environment). We also offer the Remote Commander for driving a chair via an RF switch drive control remote for certain chair configurations.

**Link Selector**
The Link Selector is an excellent evaluation tool to determine the optimal configuration for a person to drive with switched drive control. It allows the different direction or mode to be operated by various switch inputs depending on what is best for the driver, and which toggle is thrown.
Custom Requests

Our R&D and production department work together to provide custom solutions to our customers’ needs, whether it is simply embedding our sensors in aftermarket headrests for a custom head array with support and positioning benefits or designing specialized switches to perform special functions.

Best for early intervention driving and/or those with the inability to drive with a joystick or head array

Customized Trays

- Custom tray made to customer’s drawing
- MicroPilot mounted horizontally in Bullet Tray with custom 90 degree knob
- Eclipse tray embedded with proximity sensors
- Bullet Tray embedded with fiber optics for seat functions

Lease Program

The Switch-It Lease Program is designed for someone who has a progressive condition and may need different drive controls over a period of time. During the course of the five-year lease, different drive controls may be changed out immediately without any additional cost, and therefore, not having to wait for additional medical justification or reimbursement, so the client can immediately utilize the drive control necessary to operate his or her chair.

Dual Pro Head Array Video

This Switch-It video gives an overview of the Dual Pro Head Array advantage. The Dual Pro is easy to program and will customize to any simple or complex user.