

SWITCH AT



The [2011 World Report On Disability](#) indicated that approximately 95 million children worldwide had a disability (13 million of those with a severe disability) and that number would continue to rise. If you have a child with a disability, you may often face a challenge in finding devices that meet his or her unique cognitive and physical needs. These devices, often referred to as assistive technology (AT), help provide him or her with the opportunity to interact with and be successful in the world. One type of AT that has varied uses and may be helpful for your child is the switch.

When connected to other devices, your child can use switches to operate the devices instead of using their standard controls, which may be difficult or impossible for her or him to use. For example, with a switch, your child may be able to activate a communication device, play a game, turn on a light, and control a computer.

Switches can be used for many home- and school-based activities, including but not limited to:

- Improving computer skills;
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- Enhancing communication;
- Facilitating learning;
- Increasing mobility; and
- Encouraging play and exploration.

This guide provides you with an overview of the major types of switches available on the market.

Types of Switches

Switches come in a variety of shapes and sizes and are generally classified into two major categories: simple and specialty. Simple switches are activated through touch via a hand, feet, leg, tongue, etc., while specialty switches are activated through an alternative means such as breath, motion, sound, infrared, and/or fiber optic. Below are common types of switches that may help your child move more independently and interact more easily at school or in the home.

Pressure Switches

Your child can use pressure switches to operate a device with a part of his or her body. One example is the [Turk Headswitch](#). It is designed for use by children with limited upper and lower extremity strength and coordination. It is a headrest that allows your child to operate a device with his or her head. Another example is the [Adaptation Pal Pad Switch](#). This switch is also a pressure-activated membrane that requires only a light pressure to activate, designed for use by children with limited movement. Your child only needs to slightly touch (just 1.2 ounces of force) it to operate a device.

Joysticks

Your child can use joysticks to operate a device by moving them in various directions to perform specific functions. One example is the [J-Pad](#). It allows your child to operate all iPad functions (including apps, music and media, iBooks, still and video photography, on-screen keyboard entry, and more) using its joystick to navigate and its buttons to launch and close apps. Connecting wirelessly to the iPad using Bluetooth, J-Pad is designed for easy set-up. Another example is the [Moozi Wheelchair Joystick](#). This joystick allows your child to control the movement of her or his power wheelchair.

Sip-and-Puff Switches

Your child can use sip-and-puff switches to operate a device with her or his breath. One example is the [AutonoMEgo](#). It allows your child to operate lights, fans, blinds, a TV, bed controls, nurse calls, speech generation devices, computers, dictation devices, telephones, and more. Another example is the [ASL 6-Function Sip & Puff Bed Control](#). It allows your child to operate a pneumatic bed. A sip command selects the desired bed function and a puff command activates the choice.

Eye Twitch Switches

Your child can use eye twitch switches to operate a device by moving his or her eyes. One example is the [Enable Eyes Control Bar](#). It allows your child to use a computer to communicate through speech generation, emails, instant messaging, and more through its state-of-the-art eye tracking technology. Another example is the [Eyegaze Edge Tablet](#). It allows your child to turn on lights and appliances; operate a universal remote controller for television, DVD, and stereo control; and access email and the Internet.

Grip or Squeeze Switches

Your child can use grip or squeeze switches to operate a device by gripping or squeezing them. One example is the [Squish Switch](#). It is shaped like a large pillbox, is cloth-covered and cushioned, and allows your child to use myriad devices by squeezing and applying pressure to it with his or her hands or elbows. Another example is the [Grasp Switch](#). It is tube-shaped with a foam hand grip that is soft to the touch and allows your child to also operate many devices by gripping it.

Tongue Plate Switches

Your child can use tongue plate switches to operate a device with her or his tongue, lips, or teeth. One example is the [ASL Lip Switch](#). It is a light-touch mechanical switch that allows your child to operate a powered wheelchair, computer, or another device with her or his lip or tongue. Another example is the [QuadMouse](#). The QuadMouse allows your child to access to a computer or other device by moving her or his chin, lips, or tongue.

Switch Accessories

In addition to switches, there are numerous switch accessories that can provide your child with additional support:

- **Switch mounts** provide a supportive base for your child's switch when in use. They can be purchased commercially or customized. Some examples of low-tech mounting solutions include placing a switch on a piece of non-skid material such as Dycem or a drawer liner; applying tape to the base of a switch to temporarily affix it to a surface; or using the angled surface of a notebook binder as a switch stand. Commercial products are also available to provide alternative switch-mounting solutions to surfaces such as desks, wheelchairs, and beds.
- **Battery interrupters** allow battery-operated toys to be converted to switch-accessible toys.
- **Wireless switch transmitters** allow a switch to activate a device without wire connection.

For More Information

Adapted switches provide a portal to independence. They can help your child access the computer, communicate with others, explore his or her environment, and control a variety of appliances and electronics. The examples discussed in this guide represent only a small fraction of switches that are available to help your child in the home, school, work, and public spaces. To learn more about the switches mentioned in this guide and other adapted switches, please [contact us](#).

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