



*Assistive and Instructional Technology  
Supporting Learners with Disabilities*

# PLAYING WITH SWITCH TOYS

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## PLAYING WITH SWITCH TOYS

Finding enjoyable ways for children to play is an ongoing challenge for all parents. What kind of toys to select? How to play together and alone? What to choose next?

Play is a critical component of childhood. However, children with disabilities may have difficulty interacting with objects and people due to the barriers that their disabilities present. Because these young children may be restricted in the ways they play, communicate, and move, innovative ideas must be found that promote new ways of playing and participating in daily activities. Assistive Technology (AT) has been used to provide new opportunities for children with disabilities to interact with and control their environment. One way we have found is to connect an adapter and a switch to a simple battery-operated toy --this provides a way for a child to make the toy go "all by him self"! It can also help him to engage in playing with peers and siblings. What a child can participate in is dictated by his or her daily activities.

AT can provide the means to the self-generated, active engagement of a child, as his/her ability to exert control becomes possible. This then promotes a pro-active attitude of "I can do it!", leading to increased initiation attempts and empowerment. By finding ways for successful interactions early in life, existing abilities are extended into more complex behaviors. Using switches with toys develop play skills that include: turning them on and off, moving them for social and communicative purposes, making choices to indicate preferences and just having fun!

### BEGIN WITH HIGHLY REACTIVE TOYS

Finding toys that a child likes and can interact with is a challenge for all parents. For children who are limited in their ability to locate and manipulate toys, look for toys that provide immediate and intense reactions when touched. Some children prefer a single sensory reaction, such as music or vibration only. Others may prefer multiple sensory reactions. Some reactive toys are designed as switches when connected to an electronic toy/device. Some toys will stay on as long as the child is interacting with them and others will begin with a response and stay on for a few seconds before the child must reactivate the toy again. Both types offer ways to have fun.



**Jumpy Crab**  
(vibrates + moves)



**Music Player**  
(plays music w/light)



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## USING SWITCHES WITH TOYS

Using switches with toys is a great place to start for children with disabilities. For some children with physical disabilities, a single, reliable movement can cause a toy to move. Children with sensory impairments learn that they can be the controlling source of sound, light and vibration; and those with cognitive impairments and social delays are able to interact with toys and computers with a single “button”, limiting the need for more complex directions.

A switch toy is a battery-operated toy that is adapted to be used with a single switch. Most battery-operated toys can be used to provide a way for a child to play independently or with others. Switches can give a child control over starting and stopping a toy and provide a means to play in a group. To begin, you will need an adapted battery-operated toy and a switch.

Switches come in all shapes and sizes. More than 700 different switches are available! Switches are often activated by the hand or arm, but can be used with any body part. To independently use a switch, a child must be able to voluntarily move any single body part with large or small movements.

Switches can be used with almost any toy or device that works with batteries or plugs in with the use of an interface. To be adapted for switch use, items that run on batteries use direct current (DC) and will require a battery-adaptor; while those with plugs use alternate current (AC) and will need an environmental control unit. Switches can be used to turn things on and off such as a battery-operated toy, radio, or fan by controlling the flow of power. Both AC and DC power types can be adapted for switch use. With different interfaces, the same switches can also control more complex electronics such as computers, telephones, and environmental systems.

Switch toys are battery-operated or plug-in toys that can be adapted to be used with a switch. They can be found in most toy and novelty stores. Look for toys that use AA, C or D batteries and that appeal to the child. Does s/he like toys that are noisy or musical? fast or slow? High or low contrast colors? For success by young children, look at the movement of the toy. Toys that make sound or action but stay in one place are best; or those which move slowly in a straight line. A child will want to anticipate and control the movement of the toy.

There are several vendors who offer a variety of switch-adapted toys. However, since any battery-operated toy can be adapted for switch use, the availability of potential switch toys is ample. Care should be taken in selecting a toy that best meets the interests and sensory preferences of a child. Consideration should also include the movement of a toy and the visual motor skills required to interact effectively with it.

### Selecting a Switch Toy

When looking for battery-operated toys, know the interests and preferences of the child and then carefully examine the features of each toy. Since access has been addressed through switch selection procedures, consider the sensory features of the toy and how the child will react to it. Toys should be intrinsically motivating to a child, encourage his natural curiosity and most of all be fun!

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## Switch Toy Movement

After identifying the child's toy preferences by observing his reactions to toys with different sensory characteristics, look again at the toys to select those whose movements encourage appropriate "manipulation" by the child and which promote interactive play. Toys should be selected based on their movement patterns, the child's visual ability and anticipatory skills. The child must be able to control the movement of the toy in order to begin to use it within daily activities. Some of the toys can be purchased which are permanently adapted for switch use. Others are commercially available and can be used with a battery adapter. Adapted toys stay on as long as the switch is pressed, strengthening the relation between the child's interaction and the reaction of the toy.

**Stationary** toys are a good place to begin, as they are active yet stay in one place. When they are turned on, they may make musical or other sounds, light up, vibrate or even blow bubbles! The important characteristic is that they do not move. The child can observe the reaction of the toy in a stationary placement.



**Horizontal toys** move in a single direction. Look for toys that move a short distance and then stop while music is played (or the head goes up and down, etc.) and then move again. Visual motor skills (focus, tracking, etc.) are encouraged. In this way the child is able to watch the result of his switch activation in a controlled activity. By turning the toy towards the child as it moves, the child is immediately involved and his participation is guaranteed! The cow can be used for a variety of playful activities: to knock down blocks or bring a cookie to a friend.



**3-Dimensional** or circular moving toys incorporate more demanding visual motor skills such as left and right tracking.



**Bump and Go toys** are the most readily available category of battery-operated toys. However, they are the hardest for children to anticipate their movement and to direct them. Often children enjoy them for their high activity level, but tire of them quickly as they are difficult to “control”. By containing the toy with a shallow pan, hula hoop or box top, the child is able to watch and better control the “bump and go” movements.



When using switches and toys there are several things to consider. The child should have easy access to the switch and be able to observe the resulting movement of the toy. The switch and/or toy can be stabilized for better control. The closer the switch is placed to the toy, the more concrete the association is. As a child develops, the switches can be placed farther from the source of movement. Labeling the switches with pictures or symbols of the toy or play activity can promote early choice making.

### Switch Adapted Games

Young children like to participate in games with their brothers and sisters. Several motorized games are available that require a battery for use. Use a battery interrupter to adapt any of these toys/games for switch use.

- Gearation (TOMY)
- Lucky Ducks (Milton Bradley)
- Bubble Machine (Fisher Price)
- Big Bubba Bubble Maker™
- Light Brite
- Spin Art
- Elefun (Parker Brothers)



Gearation 1

Other items to adapt for switch use:

- Flashlight
- CD player
- Christmas tree lights
- Halloween pumpkins

### Switch Toys and Games for All Play Stages

Switch toys and games are available for all play stages that a child experiences. A popular switch toy vendor provides a list of 100 available toys and various play areas. **Adapted Toys**

**Development Chart** - [http://enablingdevices.com/files/content/Adapted\\_Tools\\_Skills\\_Chart.pdf](http://enablingdevices.com/files/content/Adapted_Tools_Skills_Chart.pdf)

See also:

- Adapting a Toy
- Selecting a Switch
- Switches for Communication