

UW Engineers Write Manual “Life’s A Switch”

In May of 2002, Dr. Steven Barrett, Department of Electrical and Computer Engineering, was funded by the National Science Foundation's Division of Bioengineering and Environmental Systems to establish a program to assist individuals with disabilities. With this program two undergraduate students, Jennifer Barnes and Stephanie Popp, were provided with an opportunity to directly aid individuals with disabilities throughout the state of Wyoming. These two students spent the summer of 2002 developing a program to teach community leaders and parents assistive switch technology. Children with disabilities need assistive switches in order to perform daily tasks and learn cause and effect. The problem that many parents and teachers face is the expense involved with purchasing commercially available assistive switches. Therefore, the main purpose of this program is to provide these people with the knowledge and instruction needed to cost effectively make and adapt their own switches.

In the development of this program Jennifer and Stephanie investigated several methods for building inexpensive assistive switches. After investigation and construction of several switches, they wrote the manual “Life’s A Switch.” This manual provides instruction for the electrical and mechanical engineering involved with building switches. One challenge involved in writing this manual was to present the material to an audience of little or no technical background. This manual was intended for the use of teaching a switch workshop, or for anyone seeking information regarding switch technology. If you are interested in obtaining a copy of this manual, click on the *Contact Information* link below. A read only copy of the manual is provided on the *Life’s A Switch* link below.

After completion of the manual, a switch workshop was offered for people from around the state of Wyoming. This workshop was held in September on campus. Dr. Steven Barrett, Jennifer Barnes, and Stephanie Popp taught this NSF funded workshop. Kathy Laurin and Jan Bloom from the Wyoming Institute for Disabilities (WIND) assistive technology program presented educational information on the need for and applications of assistive switches. Each attendee was provided with a kit containing the tools necessary to construct their own assistive switch. The workshop focused on teaching basic circuits, multimeter use, and soldering techniques. The workshop turned out to be very successful and each attendee left with the hands on experience and tools necessary to construct their own assistive switches.