

Video Game Controllers

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Technology used	Experience level required
simple electric circuitry	intermediate
shop tools, craft tools	beginner-intermediate

Grade Level (of this example): 5-12

Content Standards (of this example): Engineering - game design, controller for RC/ROV, adaptive technology

Summary of Project: Students create new human interfaces to existing game controllers. The students design the new switches, wire them, test for the desired action, and build and test the final product. Students will present finished working models to the class, demonstrating its action. The design goal could be to make the game better adapted to a particular human need/ability, to create a new challenge in playing the game. to follow a particular content theme, or to be whimsical and fun to play. The controllers can be a joystick, a Nintendo controller, or an interactive system of switches to be executed by another action, like the “dance” game shown below. They can work individually or in a group to design their controller and gather appropriate materials.

