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ECE 1895- Junior Design

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Bop-It Project Proposal

For project 2, we are proposing a Bop-it that will use the ATMega328P microcontroller to detect inputs, outputting sounds and performing all the software functionality. Some of the other necessary components of the toy include: An 8-ohm speaker for outputting directions and notifying the user of incorrect inputs, a 9V battery holder, a display for score, and a power switch. There will also need to be an integrated circuit to ensure that sound is outputted properly through the speaker. The toy will be encapsulated in a box-like structure. The first input type is a button that will be pressed when the "bop-it" command is given. The other inputs will be a slide potentiometer for a "slide it" command and a knob for the "twist it" command.

Figure 1: https://www.sparkfun.com/products/11995

Figure 2: https://www.sparkfun.com/products/14889

Figure 3: https://www.sparkfun.com/products/10002