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Hands-on kit for digital electronics

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Abstract. Digital electronics has become an important topic in modern science education. While simulation tools are valuable, hands-on devices play important role in understanding digital principles. Our kit provides a practical way to explore the functionality of physical logic gates, flip-flops, and simple binary decoders. Additionally, it allows students to design and build their own combinations of logic gates using the CD4000 integrated circuit series and pushbutton switches. This approach helps them better understand the operation of digital technology. The teaching kit is designed for high school and undergraduate students across various engineering disciplines.

Education level

Age over 18 (excluding teacher education)

Physics topic

Interdisciplinary topics

Research focus

Lab experiments

Research method

Other

Organizing preference criteria

Other

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