

# **Modular Capacitive TouchPads**

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## **ABSTRACT**

We plan on interfacing arrays of 9 capacitive touch sensors with the Nexys 4 FPGA. Each array will have 4 ports to which other arrays of 9 sensors can be connected to. The FPGA will have serial communications with only one array and communication between adjacent arrays will be used to determine the layout and poll the status of each sensor on the other arrays not connected to the FPGA. The FPGA will then process the inputs from all sensors and display the layout of the boards and the status of the sensors on a monitor. If time permits, we will also use the sensors to control outputs on the Nexys 4 board.