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Final Project 4x4 KeyPad Progress Report

CompE 470L

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Hardware & PIN Setup:

As of right now I have not gotten very far in the project. I have been attempting to research and figure out the PIN setup on the 4x4 Keypad. Due to lose pins I have soldered 10 PINS onto the FPGA from GND to GND on N7, which will connect into a bredboard then connect to the 4x4 keypad.

After doing research on the 4x4 keypad, I figured out how the system actually works. There are a total of 8 Pins on the 4x4 keypad. The first 4 pins represent the *4 ROWS* of the keypad and the last 4 pins represent the *4 ROWS*. How the system actually works is that the Columns act like OUTPUTS (TX) from the FPGA. Essentially the FPGA will send the Pins connected to the Columns a 1 (3.3V). The Rows act like INPUTS(RX), So if a Column has a high value and a button a row is pressed will flow through the button and back into the board. The way it does this is that the ROWS are to be set as Pulldowns (Set to ground) there by dragging the voltage to ground and back into the FPGA. The Diagram below shows it in more detail.

