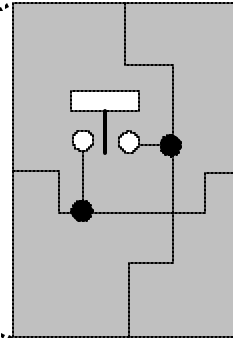
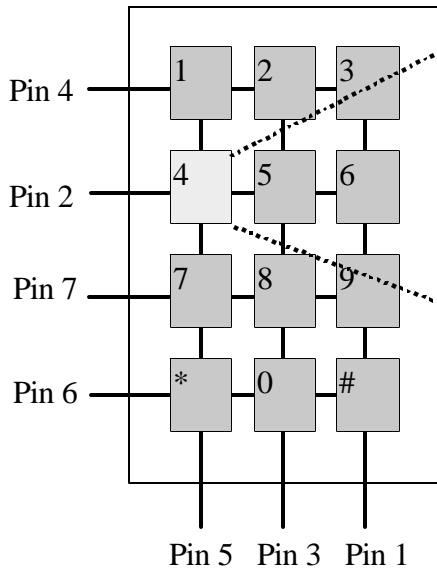




# EEL 4744

# Keypad



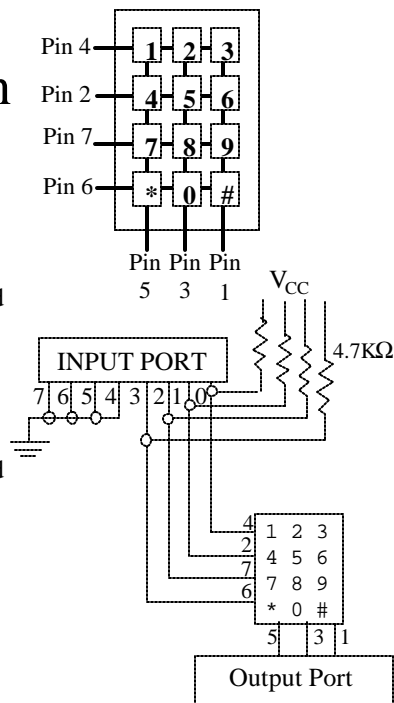
- Most keypads work the same way
  - > Only the pin numbers vary
  - > Many ways to solve the keypad problem

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# EEL 4744 Keypad Discussion

- The row (column) wires are pulled-up
- Search for a key a column at a time
  - > Output a low to pin 5 (high to pins 3 & 1) and test keys in first column (pins 4, 2, 7, 6)
    - If pin 4 reads low, then key 1 was pressed
    - If pin 2 reads low, then key 4 was pressed, etc.
    - If none of the pins is low, go on
  - > Output low to pin 3 (pins 5 & 1 high)
  - > If a key is pressed, set the strobe for one cycle only and wait for the key to be released before scanning for the next key
- Remember that you **must** wait for a pressed key to be released to move on

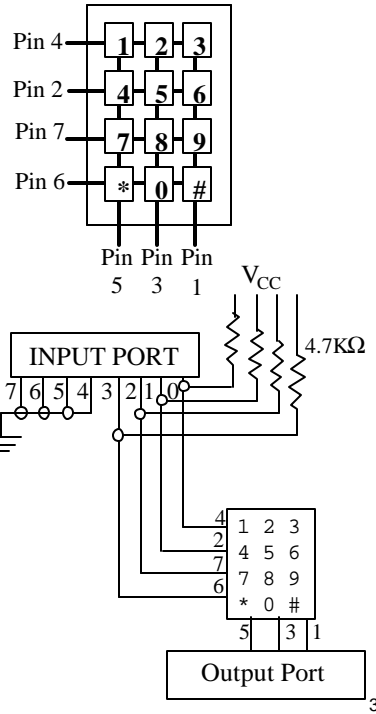


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# EEL 4744 Keypad Discussion

- Another technique (that I don't like much)
  - > Search for each key, stepping through the keys:
    - Is the 1 pressed? If so, indicate the 1 is pressed and then wait until it is not pressed; otherwise, check the next key.
    - Is the 2 pressed? If so, indicate the 2 is pressed, ...
    - etc.



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# The End!

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