Homework Handout #2
Practical Circuit Logic

1. "Glue Logic". Using standard logic gates, design the following circuit. Use the gate symbols for OR, AND, NOT etc., with the little bubbles for Active Low so that the logic works out correctly. A reminder - a signal called DOIT* is the same as $\overline{\text{DOIT}}$, only it's easier for me to type. Both mean "active low". So, make a circuit which gives an ENABLE* signal to some chip if: THIS* and STROBE* are asserted and neither BLOCK* nor NOTNOW is asserted; or if OVERRIDE* is asserted. (4pts)
2. In order to prevent partisan bickering over recounts at the next city council meeting, design a chad-free electronic voting machine (6pts). Each of the three councilors gets a switch which produces a HI if they vote for something, LO if they vote no. The machine should:

    - Light a green LED if the vote passes
    - Light a red LED if the vote fails
    - Make the appropriate light blink if the vote is unanimous for or against (assume you have a 2 Hz logic-level oscillator to provide blinky-ness).

    Feel free to add a SUPREMECOURT* override which makes the lights all go dead regardless, for an optional extra 1 point.