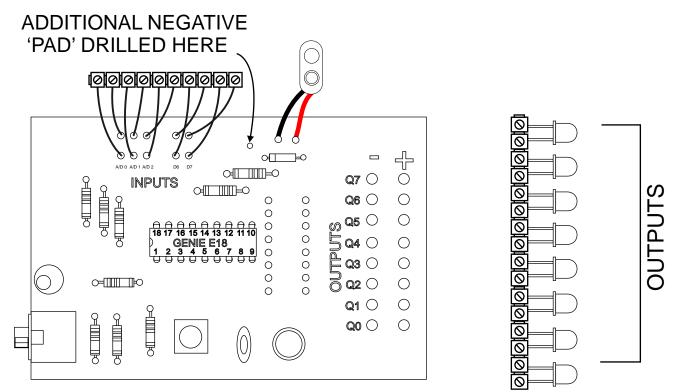


## ALTERNATIVE LAYOUT - THE GENIE E18 PCB

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1. An alternative layout of the GENIE E18 microcontroller project board, is drawn below. The wire connections, between the outputs (LEDs) and the board and a new negative connection, are missing . Using a black and red colour pencil, draw in the missing connections, completing the circuit board.



2. Why is it not possible to power solenoids and most motors from this GENIE E18 PCB?

3. The incomplete circuit diagram of the alternative GENIE E18 PCB, is drawn below. Add the missing components and 'wire' connections.

