

Step 1: Solder in the 28-pin IC socket for the atmega 328 microcontroller



Step 2: Solder in the 16-pin IC socket for the 74HC595's



Step 3: Solder in two $10k\Omega$ resistors



Step 4: Solder in the $1k\Omega$ resistors



Step 5: Solder in the 125Ω resistors



Step 6: Solder in the 100Ω resistors



Step 7: Solder in the 4 electrolytic capacitors (in any positions)



Step 8: Solder in the 16MHz crystal and the two 22pF capacitors



Step 9: Optionally solder in the 10-pin ISP header



Step 10: Solder in the 8 IRF9640 transistors (flat backing towards center of board)



Step 11: Due to an error in board design you will have to solder this first 2N3904 transistor in backwards. Simply bend the pins mirrored to how you would the other transistors. The silkscreen on the bottom of the PCB identifies how to insert it on the backside, but we want it inserted on the topside so that the board fits in the casing.



Step 12: Solder in the rest of the 2N3904 transistors