

# EPIC Car PC Board Assembly

Rev 2024-06-18

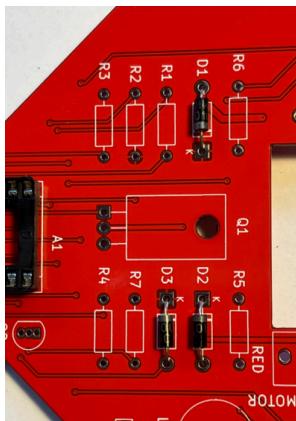
## 1. A1 - Arduino socket

Mount with notch matching PCB



## 2. D1, D2, D3 - 1N4004 diodes

Bend leads as shown, Mount with band matching PCB

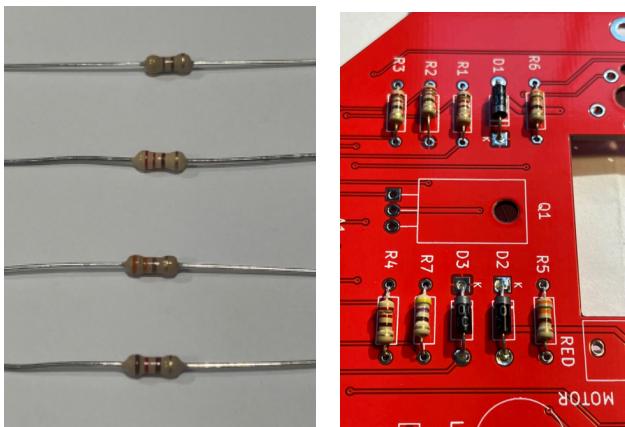


### 3. R1-R7 -- Resistors

Check color code! (or measure with meter)

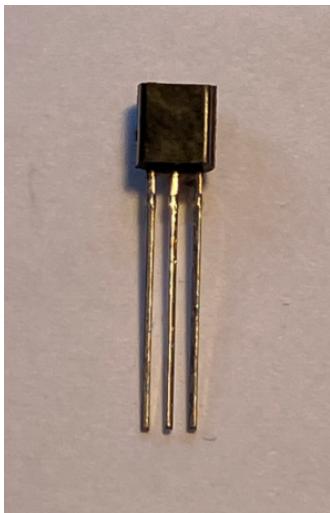
- R1 - 120 ohms - Brown, Red, Brown
- R2 - 1.8k ohms - Brown, gray, black, brown  
Or Brown, Gray, Red
- R3, R4 - 220 ohms - Red, Red, brown
- R5, R6 - 330 ohms - Orange, Orange, brown
- R7 - 470 ohms - Yellow, violet, brown

Bend leads and insert.



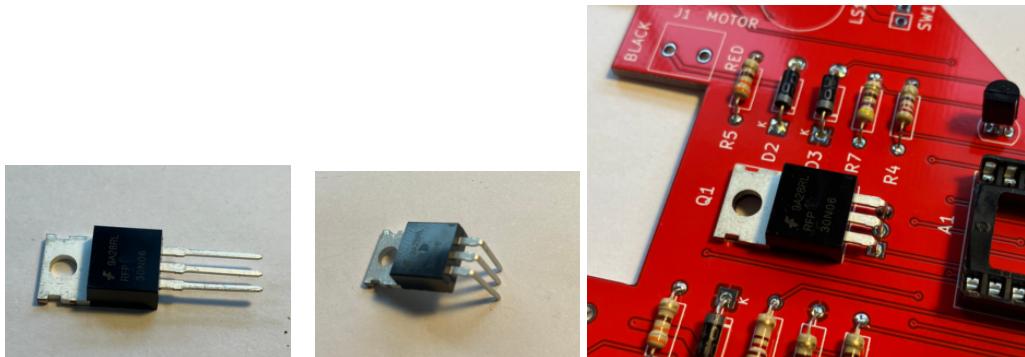
### 4. Q2 - 2N3904 BJT transistor

Install correct way around. Careful soldering to avoid bridges/shorts!



## 5. Q1 - RFP30N06 or IRF540 MOSFET transistor

Bend leads and install



## 6. LS1 - Speaker

Install the right way around (see photo and "+" on the speaker)



## 7. SW2 - push-button switch

Install from bottom side. Make sure it is flat against the PC board.



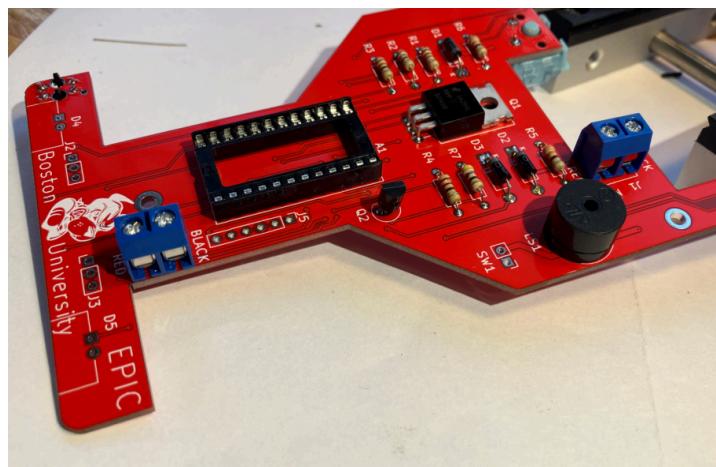
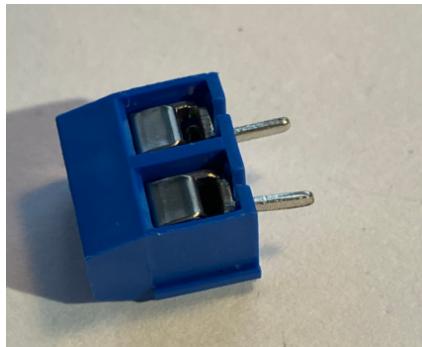
## 8. U1 - Optical sensor

Install from bottom side. Plastic pins go in holes in PCB and it snaps into place. Be sure it is flat agains the PC board.



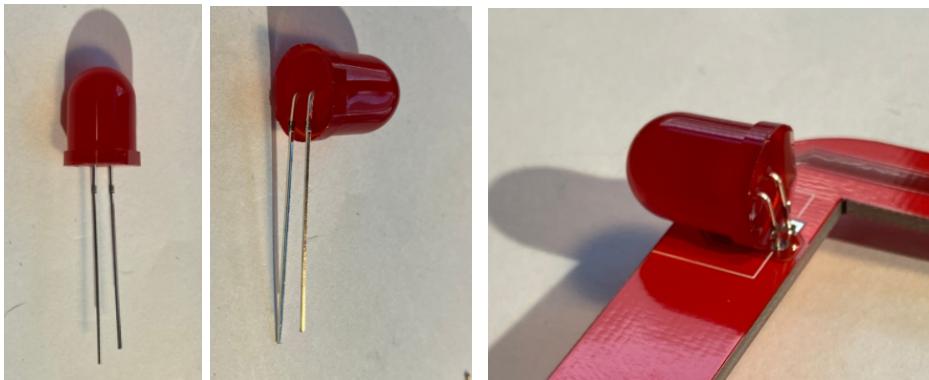
## 9. J1, J4 - screw terminals

Install from top side. Be sure the openings for the wires are towards the outside board edge.



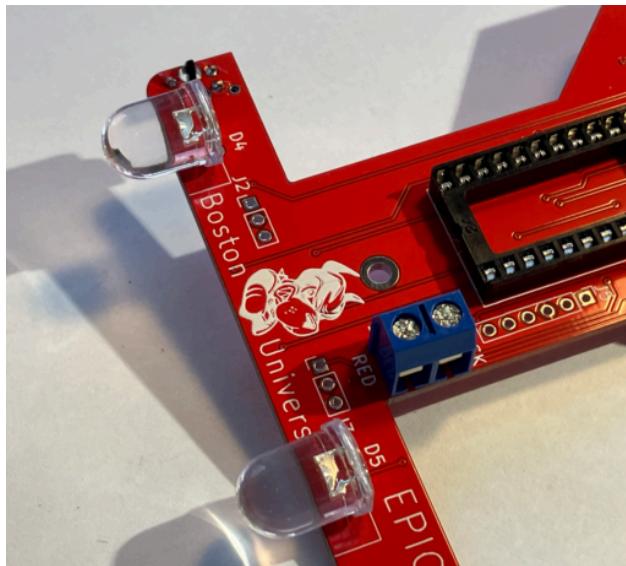
## 10. D6, D7 - RED LEDs (tail lights)

NOTE! One lead is longer than the other. This goes in the hole with the round silver pad  
Bend the leads at right angles as shown.



## 11. D4, D5 - WHITE LEDs (head lights)

Install the same way on the front of the car



## 12. SW1 - Two-pin Header

Install with the short pins through the PC board and long pins sticking up



DONE! (with soldering)