Analog Electronics
Assignment 6: PCB Design

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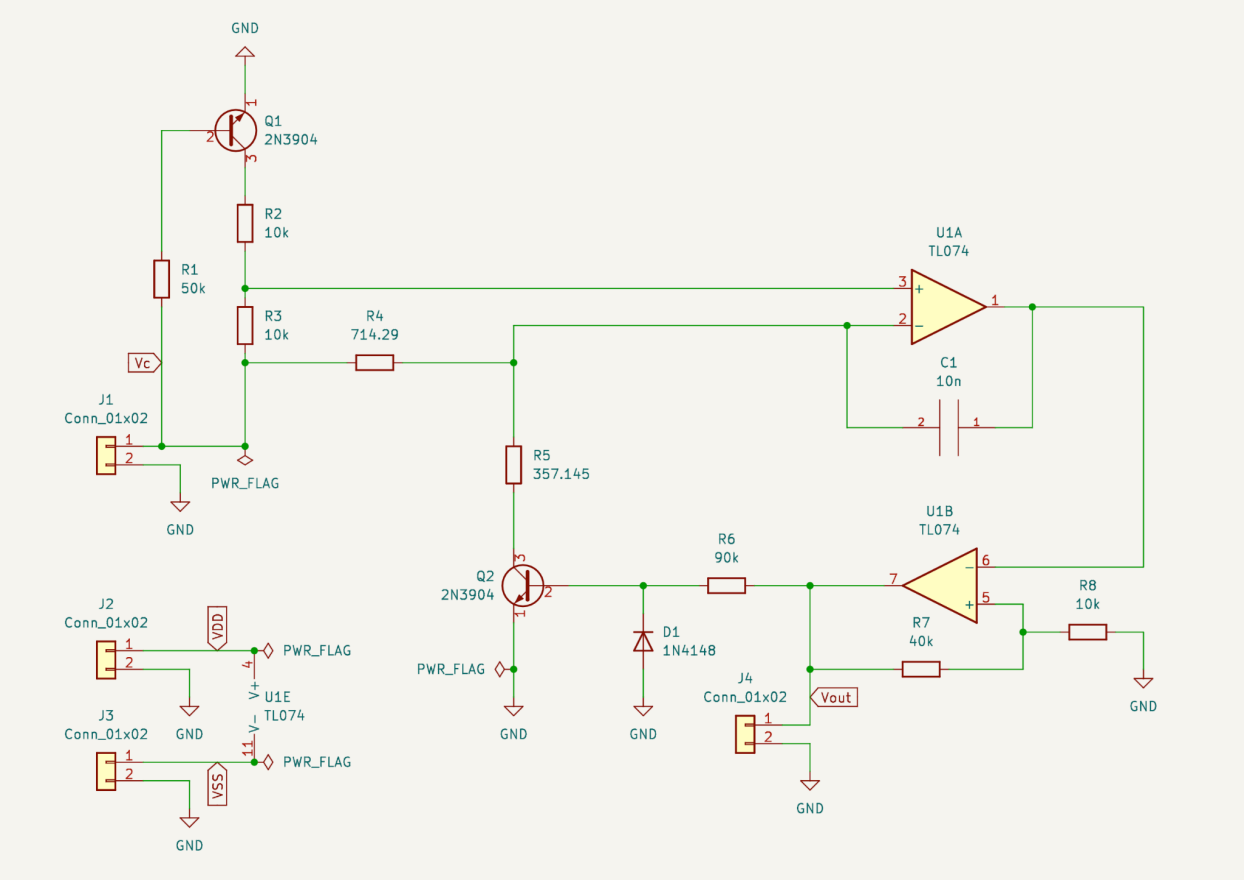
PCB design for the Voltage Controlled Oscillator implemented in Experiment 5- Q3

1. Schematic in KiCAD



2. Footprints of components

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Symbol : Footprint Assignments
 1       C1 -              10n : Capacitor_THT:C_Disc_D3.4mm_W2.1mm_P2.50mm
 2       D1 -           1N4148 : Diode_THT:D_DO-35_SOD27_P7.62mm_Horizontal
 3       J1 -       Conn_01x02 : Connector:Banana_Jack_2Pin
 4       J2 -       Conn_01x02 : Connector:Banana_Jack_2Pin
 5       J3 -       Conn_01x02 : Connector:Banana_Jack_2Pin
 6       J4 -       Conn_01x02 : Connector:Banana_Jack_2Pin
 7       Q1 -           2N3904 : Package_TO_SOT_THT:TO-92_Wide
 8       Q2 -           2N3904 : Package_TO_SOT_THT:TO-92_Wide
 9       R1 -              50k : Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P1.90mm_Vertical
10       R2 -              10k : Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P1.90mm_Vertical
11       R3 -              10k : Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P1.90mm_Vertical
12       R4 -          714.29 : Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P1.90mm_Vertical
13       R5 -         357.145 : Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P1.90mm_Vertical
14       R6 -              90k : Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P1.90mm_Vertical
15       R7 -              40k : Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P1.90mm_Vertical
16       R8 -              10k : Resistor_THT:R_Axial_DIN0204_L3.6mm_D1.6mm_P1.90mm_Vertical
17       U1 -            TL074 : Package_DIP:DIP-14_W7.62mm_Socket
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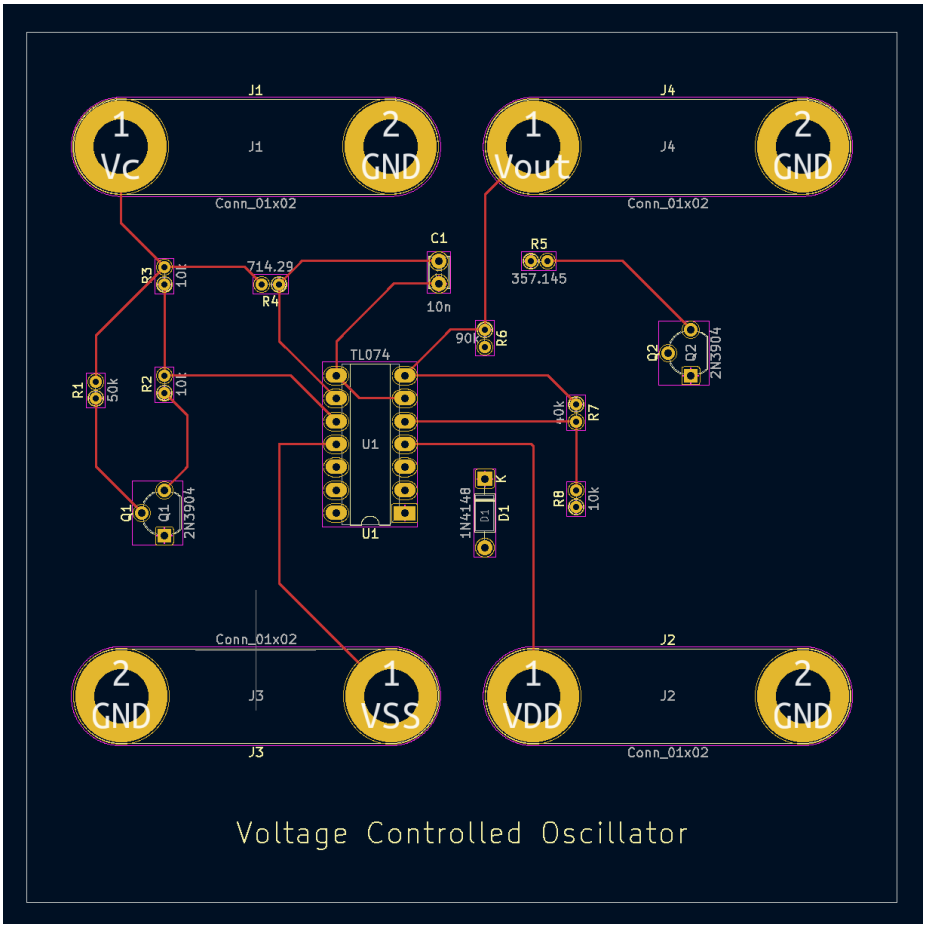
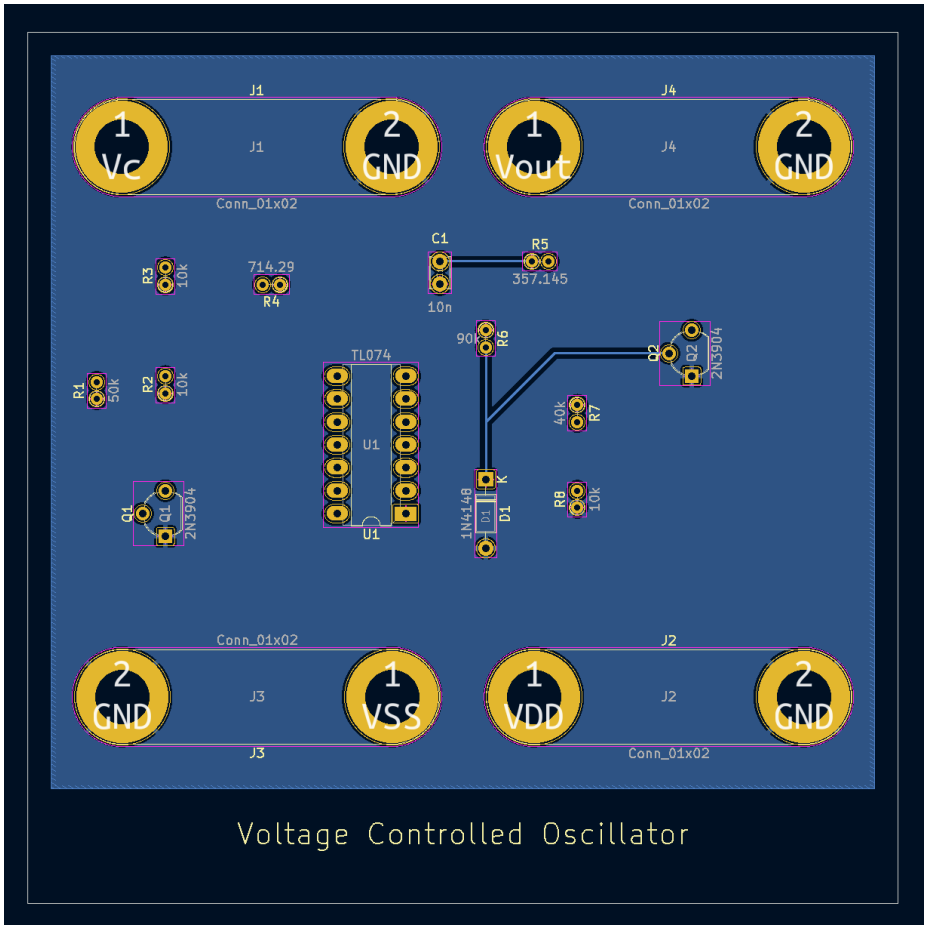
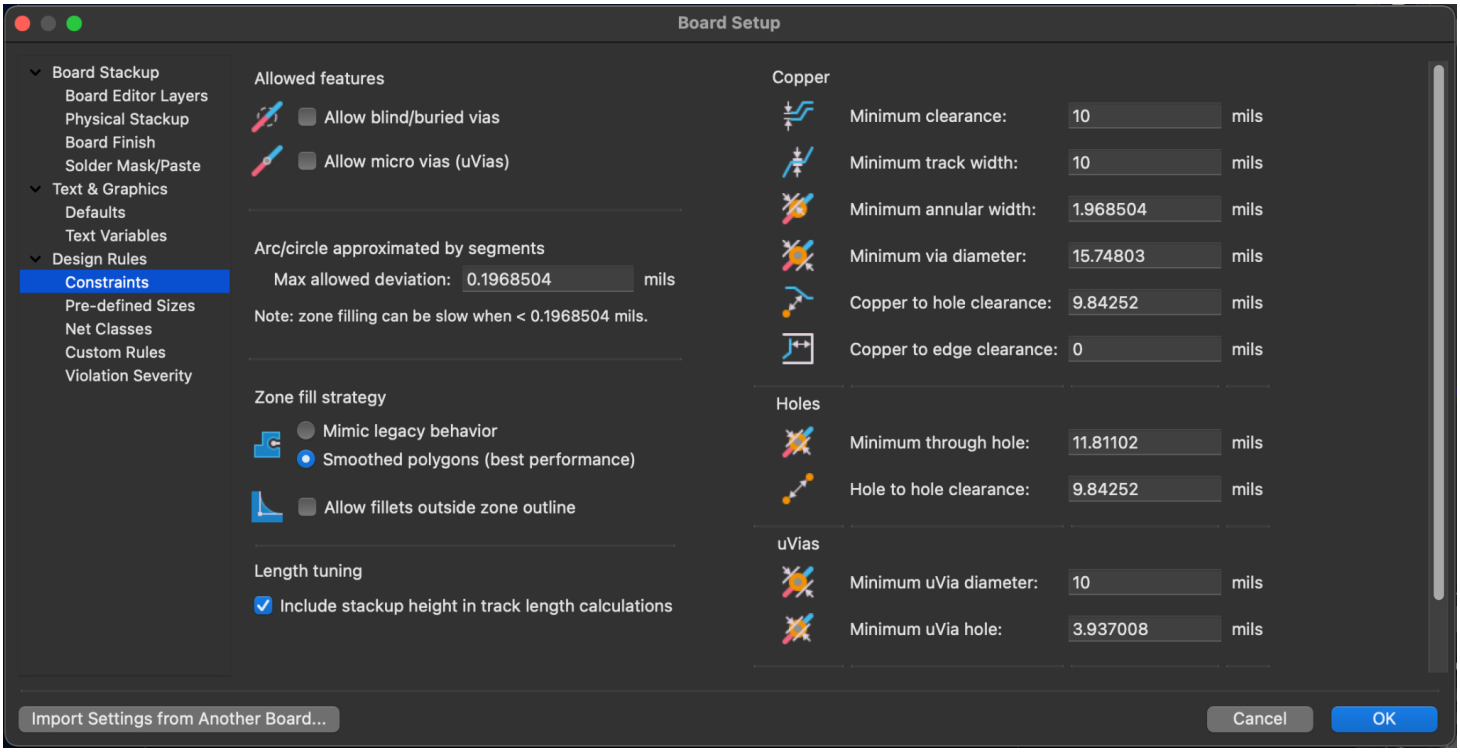
3. Front Layer in 2D



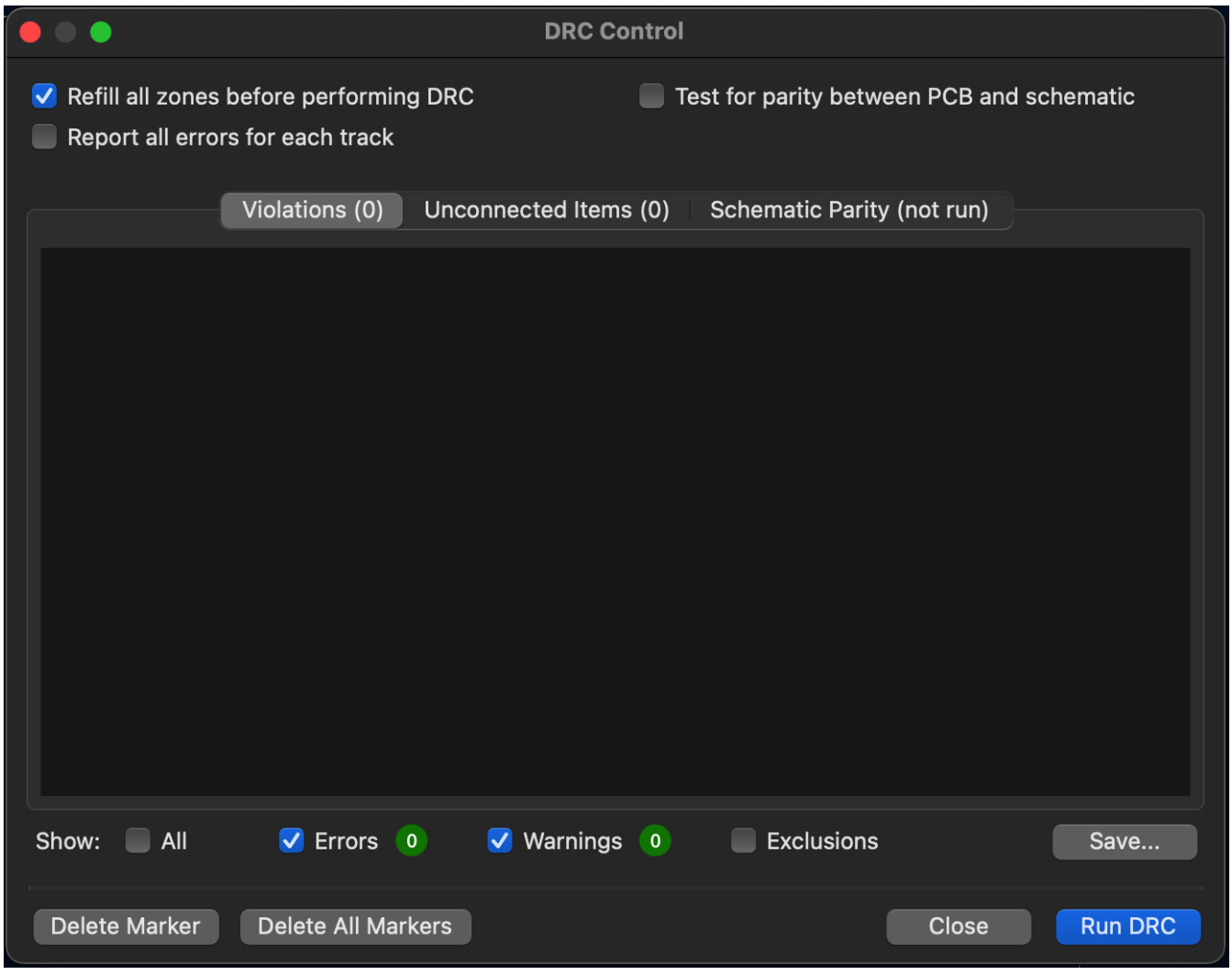
4. Back Layer in 2D



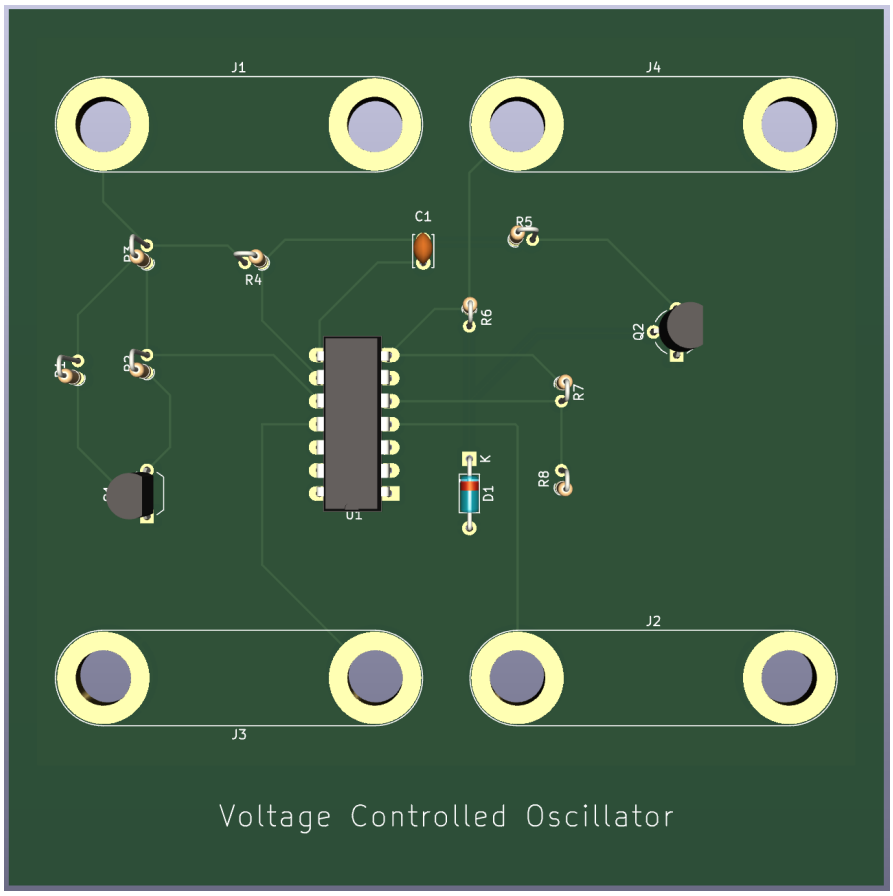
5. Board Setup



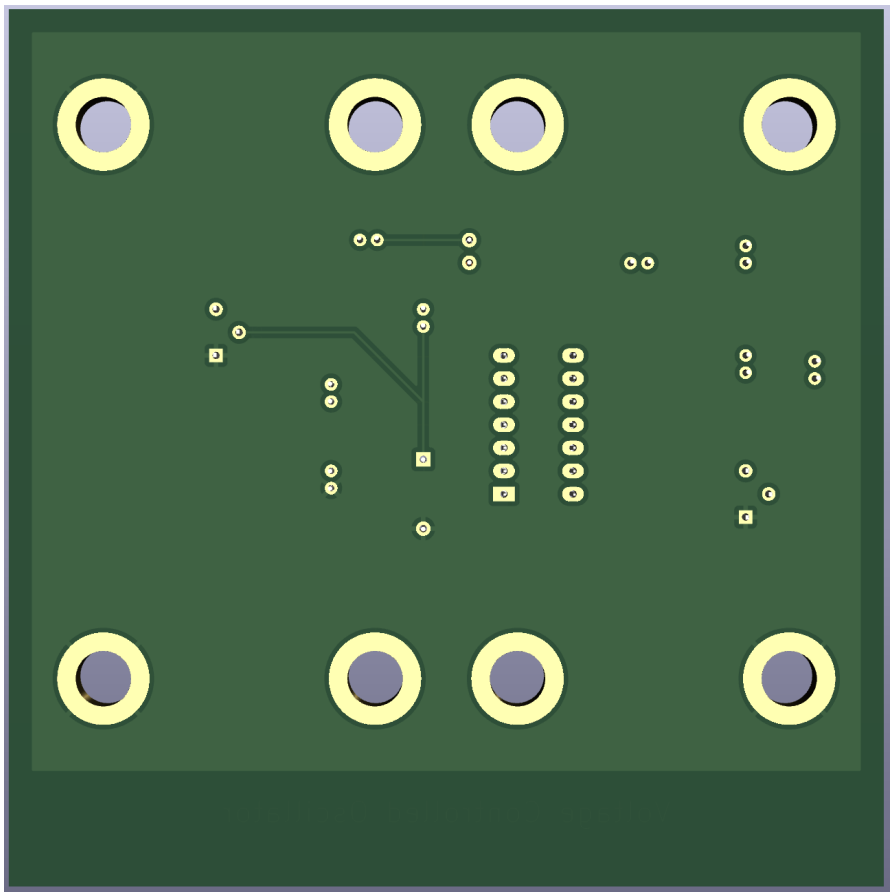
6. DRC Control



7. Front View in 3D



8. Back View in 3D



9. Side View in 3D