

Design Assignment - KICAD

Student Name: David Lenzin

Student #: 2001654470

Student Email: lenzin@unlv.nevada.edu

Primary Github address: <https://github.com/dlenzin15/submissions>

Directory: submissions/tree/main/CPE_301_KiCAD_Final

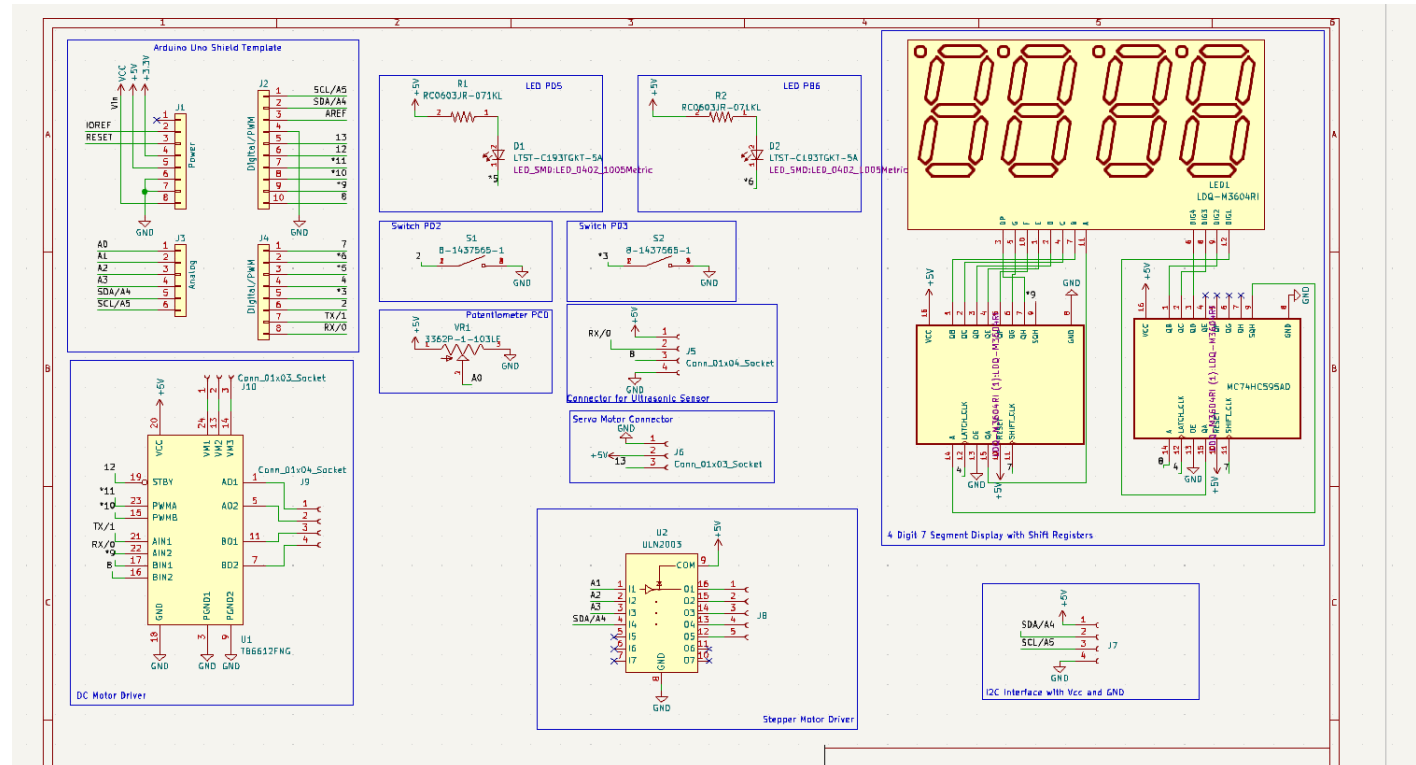
Submit the following for all Labs:

1. In the document, for each task submit the modified or included code (only) with highlights and justifications of the modifications. Also, include the comments.
2. Use the previously create a Github repository with a random name (no CPE/301, Lastname, Firstname). Place all labs under the root folder ESD301/DA, sub-folder named LABXX, with one document and one video link file for each lab, place modified asm/c files named as LabXX-TYY.asm/c.
3. If multiple asm/c files or other libraries are used, create a folder LabXX-TYY and place these files inside the folder.
4. The folder should have a) Word document (see template), b) source code file(s) and other include files, c) text file with youtube video links (see template).

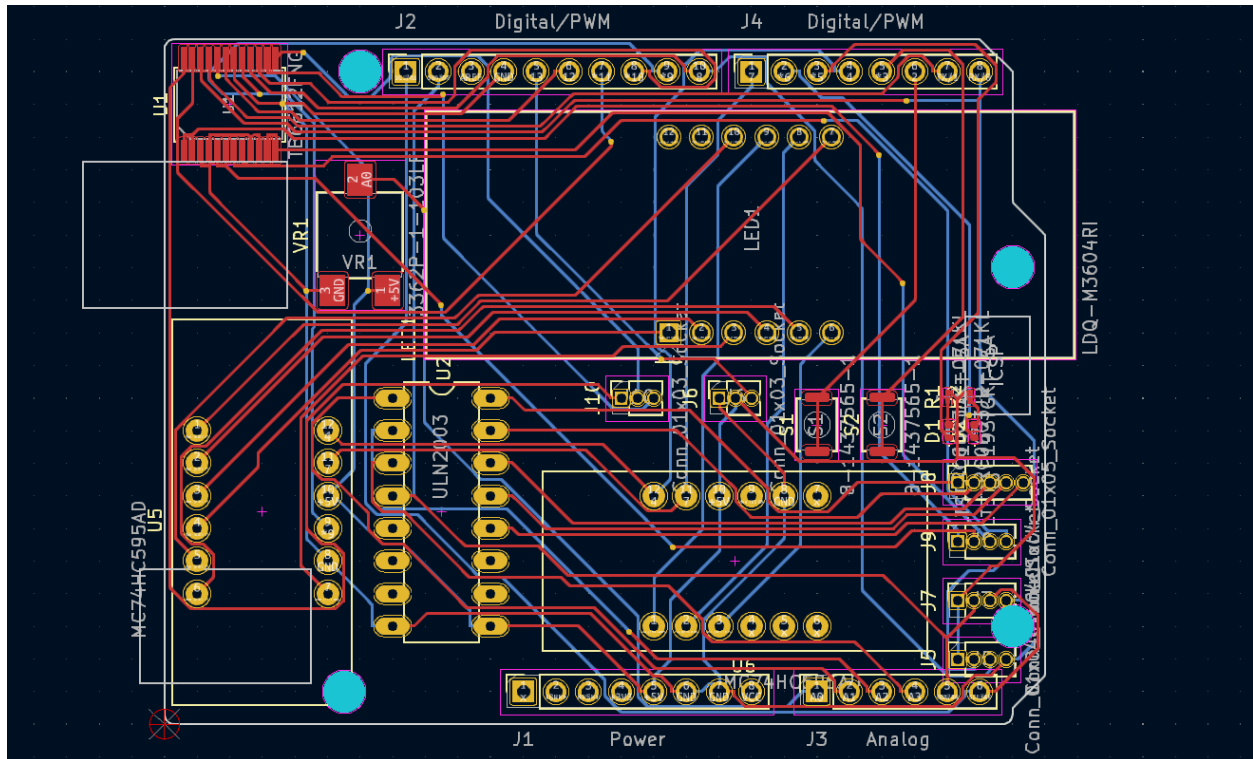
1. COMPONENTS LIST AND CONNECTION BLOCK DIAGRAM w/ PINS

No hardware used. All design was done in KiCAD.

2. SCHEMATICS

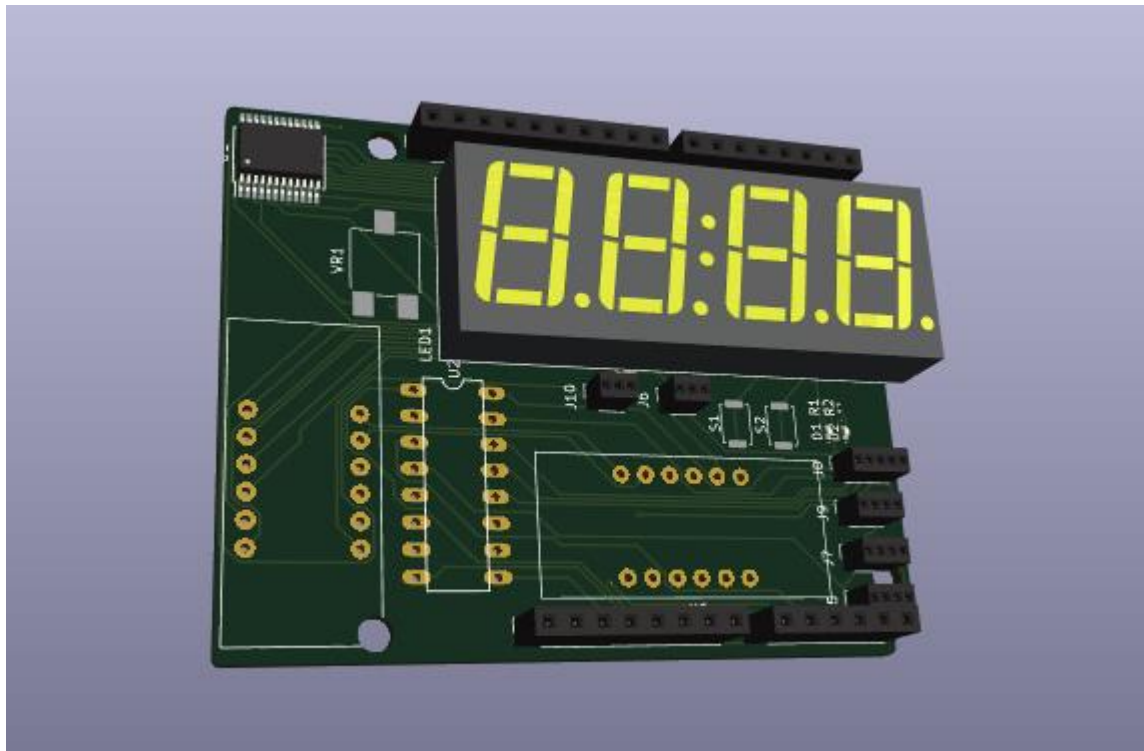


3. LAYOUT

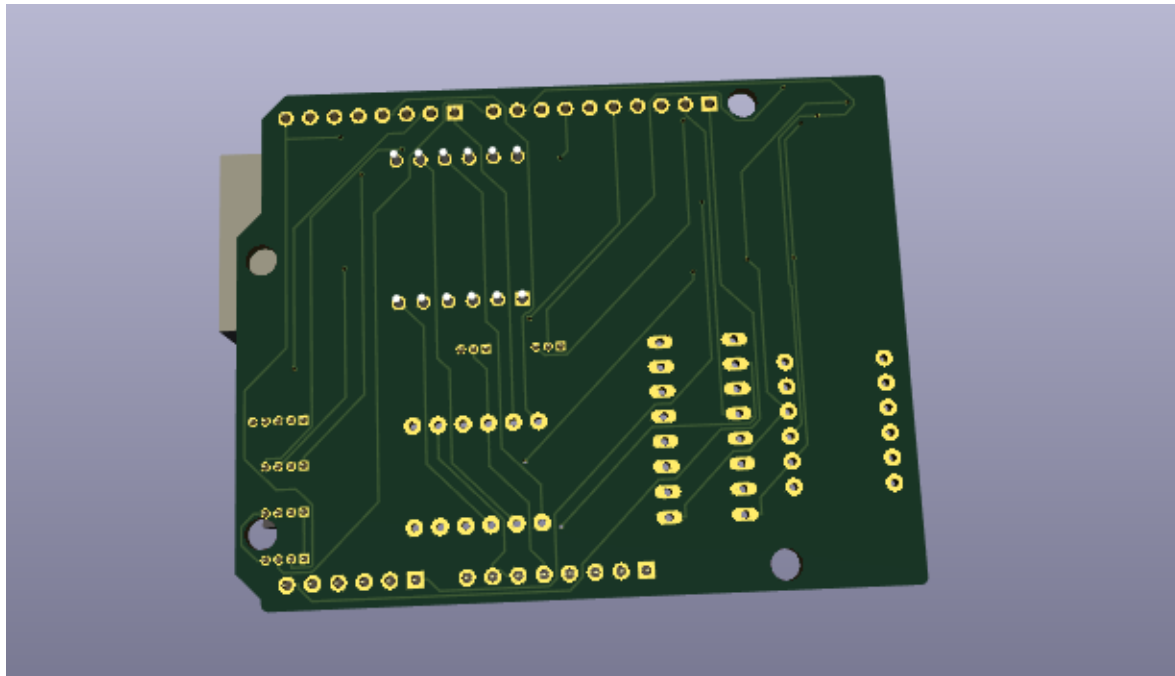


4. 3D VIEW (Front & Back)

Front:



Back:



5. BILL OF MATERIALS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	#	Reference Qty		Value	Footprint	DNP								
2	1	D1, D2	2	LTST-C193	LED_SMD:LED_0402_1005Metric									
3	2	J1	1	Power	Connector_PinSocket_2.54mm:PinSocket_1x08_P2.54mm_Verical									
4	3	J2	1	Digital/PW	Connector_PinSocket_2.54mm:PinSocket_1x10_P2.54mm_Verical									
5	4	J3	1	Analog	Connector_PinSocket_2.54mm:PinSocket_1x06_P2.54mm_Verical									
6	5	J4	1	Digital/PW	Connector_PinSocket_2.54mm:PinSocket_1x08_P2.54mm_Verical									
7	6	J5, J7, J9	3	Conn_01x1	Connector_PinSocket_1.27mm:PinSocket_1x04_P1.27mm_Verical									
8	7	J6, J10	2	Conn_01x1	Connector_PinSocket_1.27mm:PinSocket_1x03_P1.27mm_Verical									
9	8	J8	1	Conn_01x1	Connector_PinSocket_1.27mm:PinSocket_1x05_P1.27mm_Verical									
10	9	LED1	1	LDQ-M360	Display_7Segment:CA56-12CGKWA									
11	10	R1, R2	2	RC0603JR-	Resistor_SMD:R_0201_0603Metric									
12	11	S1, S2	2	8-1437565	Button_Switch_SMD:SW_Push_SPST_NO_Alps_SKRK									
13	12	U1	1	TB6612FN	Package_SO:SSOP-24_5.3x8.2mm_P0.65mm									
14	13	U2	1	ULN2003	ULN2003A:DIL16									
15	14	U5, U6	2	MC74HC595	LDQ-M3604RI (1):LDQ-M3604RI									
16	15	VR1	1	3362P-1-1	Potentiometer_SMD:Potentiometer_ACP_CA6-VSMD_Verical									
17														
18														
19														

6. GITHUB LINK OF THIS DA

https://github.com/dlenzin15/submissions/tree/main/CPE_301_KiCAD_Final

Student Academic Misconduct Policy

<http://studentconduct.unlv.edu/misconduct/policy.html>

"This assignment submission is my own, original work".

David Lenzin