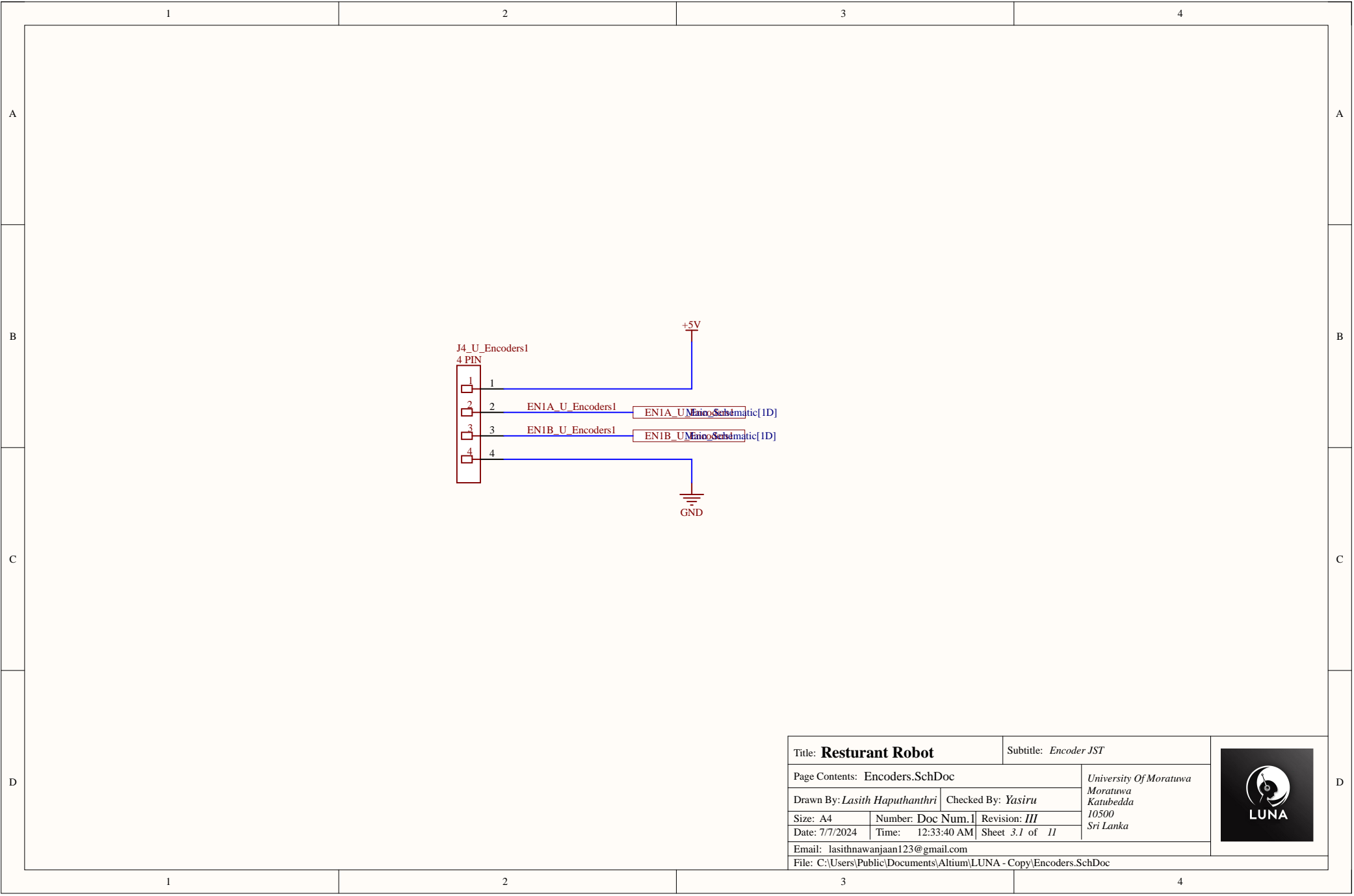
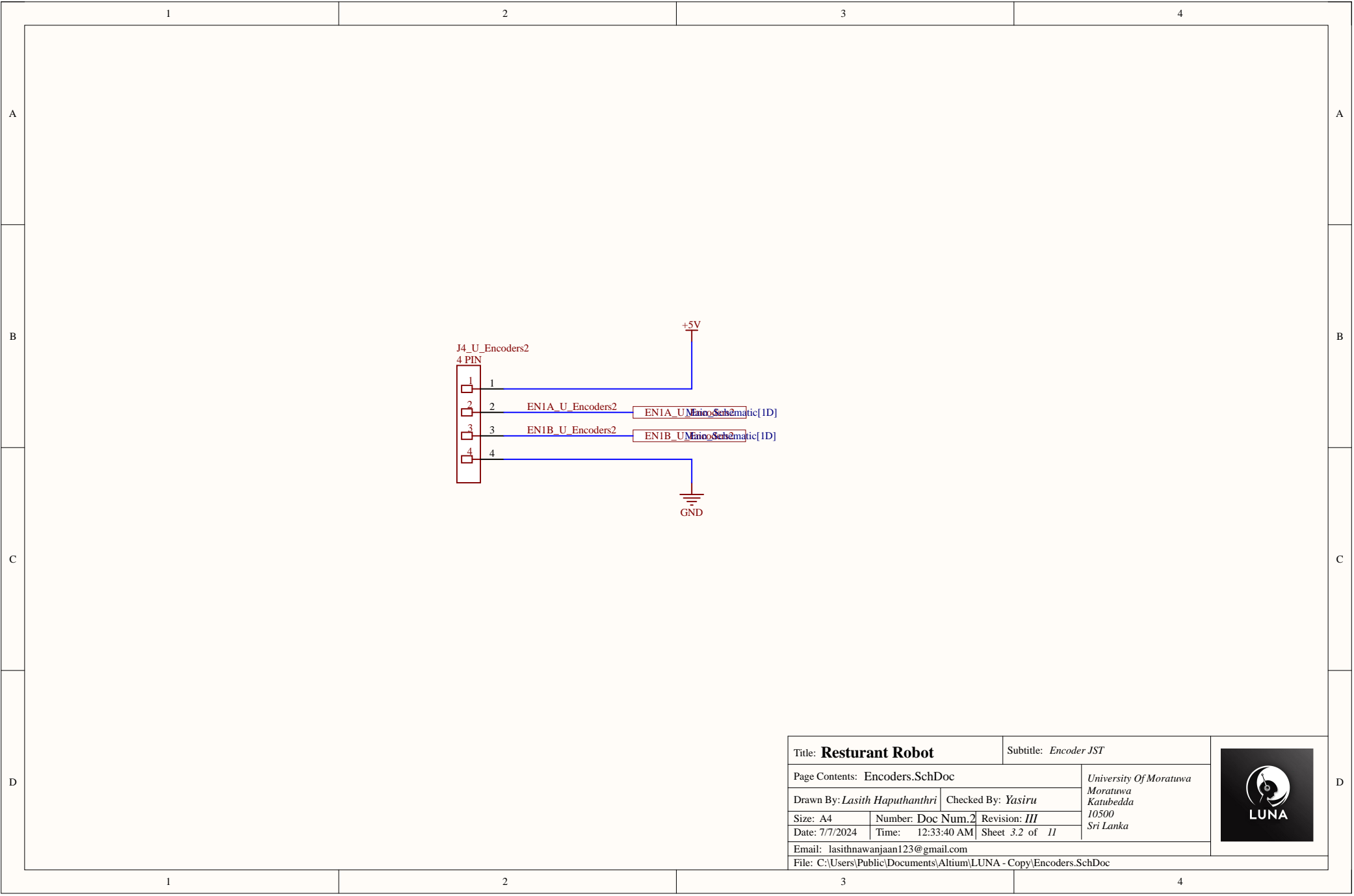



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| Title: <b>Resturant Robot</b>  |                   | Subtitle: <i>Main Schematic</i> |                        |
| Page Contents: Main_Schematic.SchDoc                                     |                   |                                 | University Of Moratuwa |
| Drawn By: <i>Lasith Haputhanthri</i>                                     |                   | Checked By: <i>Yasiru</i>       |                        |
| Size: A4   | Number: <i>I.</i> | Revision: <i>II</i>             | Moratuwa               |
| Date: 7/7/2024   | Time: 12:33:38 AM | Sheet 1 of 11                   | Katubedda              |
| Email: lasithnawanjaan123@gmail.com                                      |                   |                                 | 10500                  |
| File: C:\Users\Public\Documents\Altium\LUNA - Copy\Main_Schematic.SchDoc |                   |                                 | Sri Lanka              |

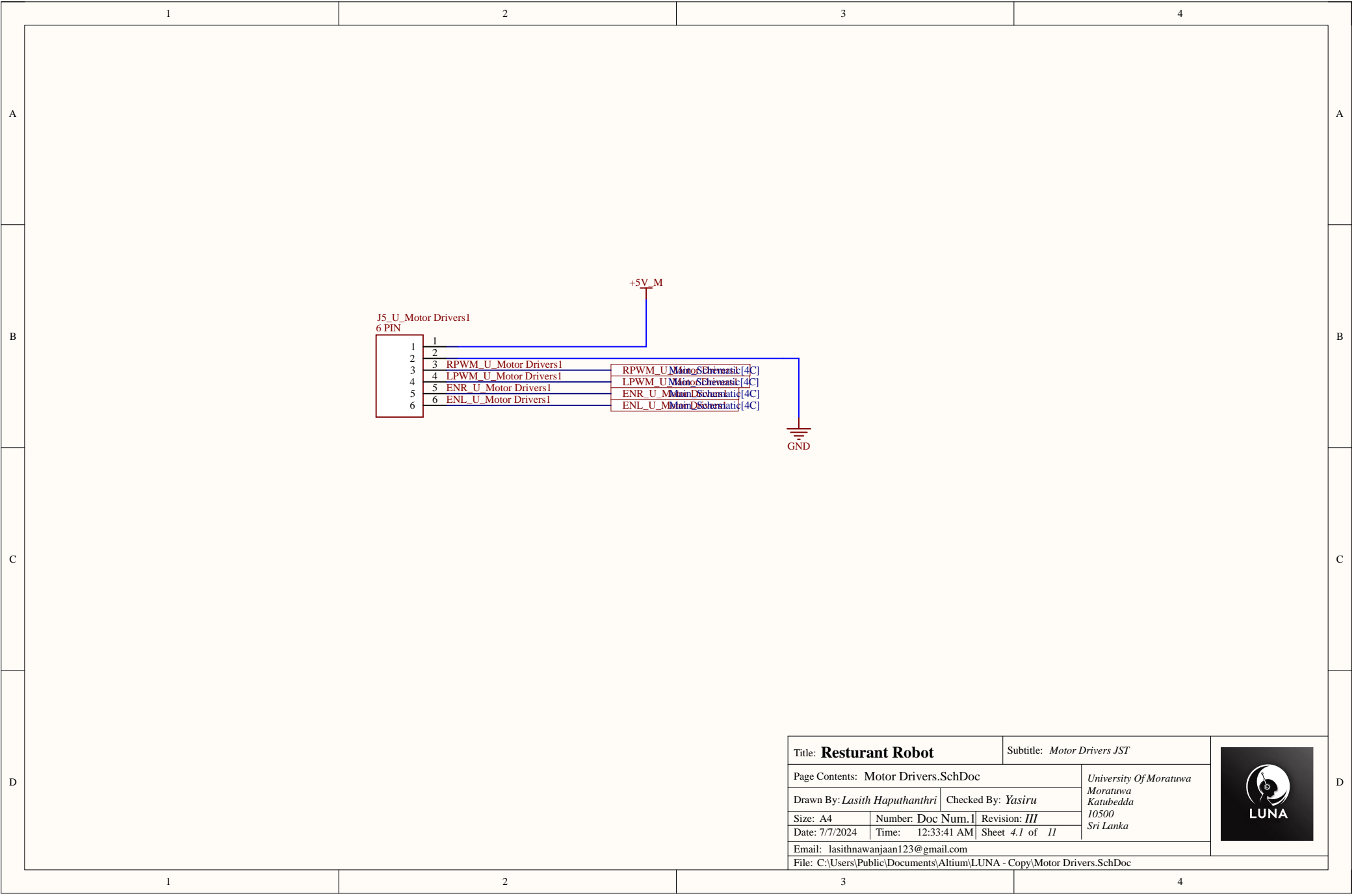


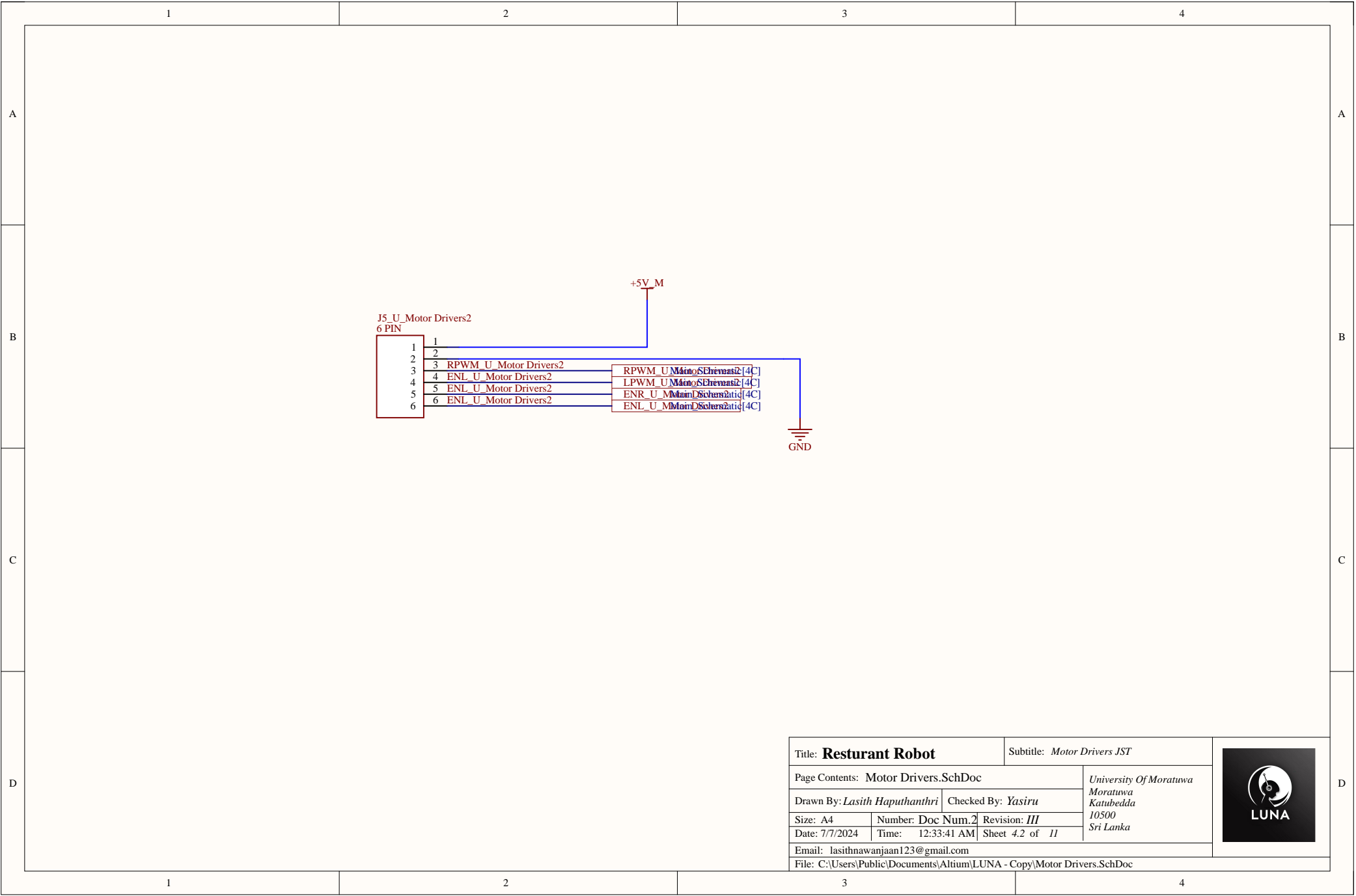


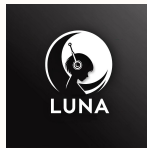


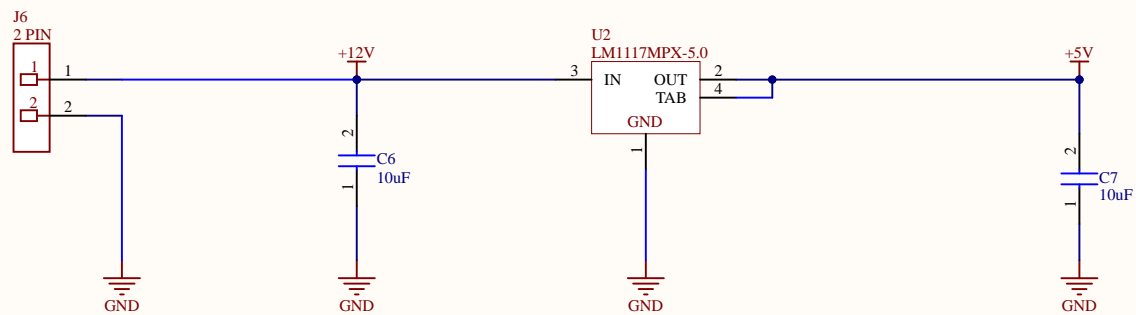



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| Title: <b>Resturant Robot</b>                                      |                    |                      | Subtitle: <i>Encoder JST</i> |  |   |  |
| Page Contents: Encoders.SchDoc                                     |                    |                      |                              |  | University Of Moratuwa<br>Moratuwa<br>Katubedda<br>10500<br>Sri Lanka |   |
| Drawn By: <i>Lasith Haputhanthri</i>                               |                    |                      | Checked By: <i>Yasiru</i>    |  |   |   |
| Size: A4   | Number: Doc Num. 2 | Revision: <i>III</i> |                              |  |   |   |
| Date: 7/7/2024   | Time: 12:33:40 AM  | Sheet 3.2 of 11      |                              |  |   |   |
| Email: lasithnawanjaan123@gmail.com                                |                    |                      |                              |  |   |   |
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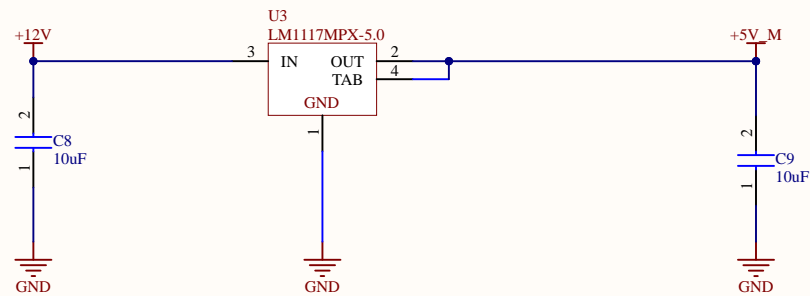





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| Title: <b>Resturant Robot</b>   |                    |                 | Subtitle: <i>Motor Drivers JST</i> |  |   |  |
| Page Contents: Motor Drivers.SchDoc                                     |                    |                 |                                    |  | University Of Moratuwa<br>Moratuwa<br>Katubedda<br>10500<br>Sri Lanka |   |
| Drawn By: <i>Lasith Haputhanthri</i>                                    |                    |                 | Checked By: <i>Yasiru</i>          |  |   |   |
| Size: A4  | Number: Doc Num. 2 | Revision: III   |                                    |  |   |   |
| Date: 7/7/2024  | Time: 12:33:41 AM  | Sheet 4.2 of 11 |                                    |  |   |   |
| Email: lasithnawanjaan123@gmail.com                                     |                    |                 |                                    |  |   |   |
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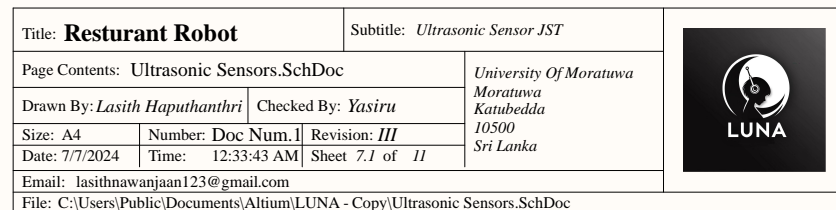


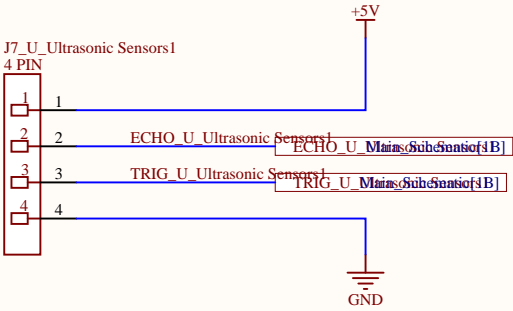
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| Page Contents: PowerMCU.SchDoc                                     |                   |                           |                                       | <i>University Of Moratuwa<br/>Moratuwa<br/>Katubedda<br/>10500<br/>Sri Lanka</i> |  |   |
| Drawn By: <i>Lasith Haputhanthri</i>                               |                   | Checked By: <i>Yasiru</i> |                                       |  |  |   |
| Size: A4   | Number: Doc Num.  | Revision: <i>III</i>      |                                       |  |  |   |
| Date: 7/7/2024   | Time: 12:33:42 AM | Sheet 5 of 11             |                                       |  |  |   |
| Email: lasithnawanjaan123@gmail.com                                |                   |                           |                                       |  |  |   |
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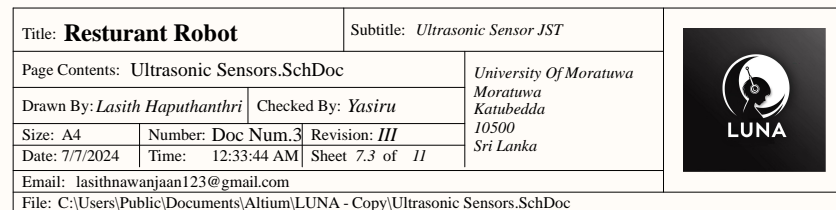
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| Page Contents: Power_Supply_Motor.SchDoc                                     |                   |                           |  | <div>University Of Moratuwa<br/>Moratuwa<br/>Katubedda<br/>10500<br/>Sri Lanka</div> <div></div> |  |
| Drawn By: <i>Lasith Haputhanthri</i>   |                   | Checked By: <i>Yasiru</i> |  |   |  |
| Size: A4   | Number: Doc Num.  | Revision: <i>III</i>      |  |   |  |
| Date: 7/7/2024   | Time: 12:33:43 AM | Sheet 6 of 11             |  |   |  |
| Email: lasithnawanjaan123@gmail.com  |                   |                           |  |   |  |
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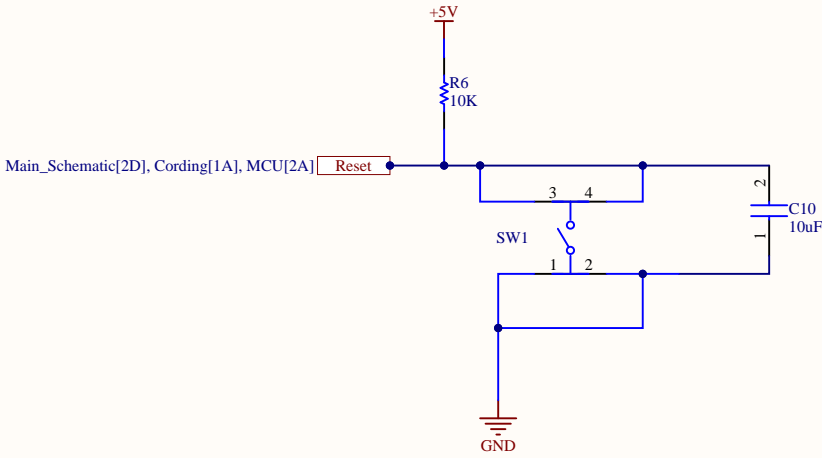





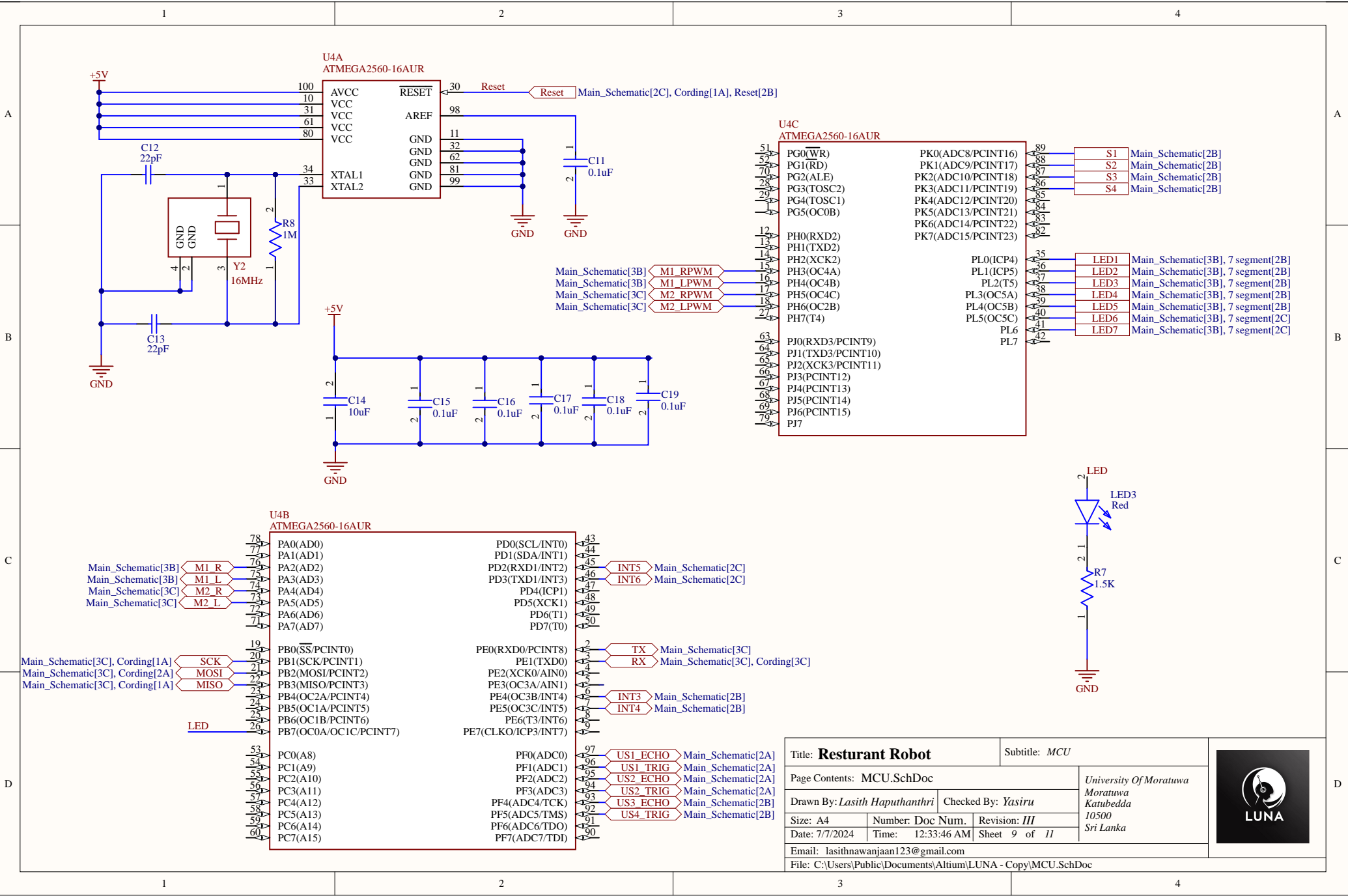


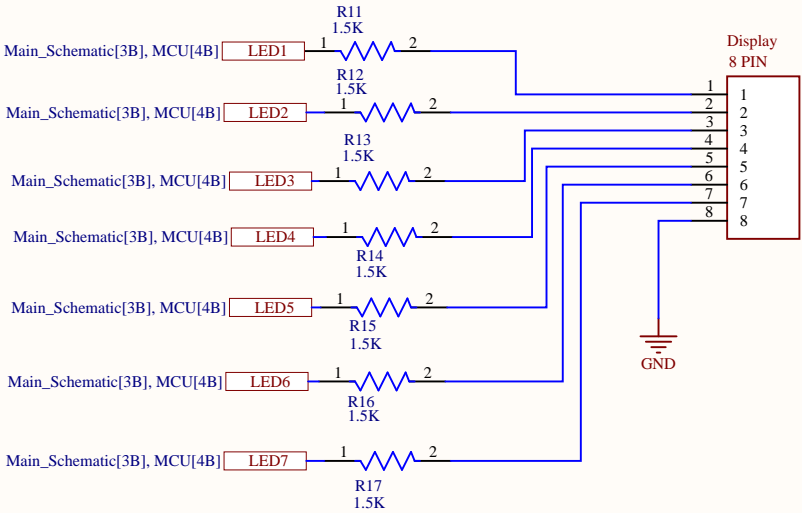
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| Page Contents: Ultrasonic Sensors.SchDoc                                     |                   |                           |  | <div>University Of Moratuwa<br/>Moratuwa<br/>Katubedda<br/>10500<br/>Sri Lanka</div>  |  |
| Drawn By: <i>Lasith Haputhanthri</i>   |                   | Checked By: <i>Yasiru</i> |  |  |  |
| Size: A4   | Number: Doc Num.2 | Revision: <i>III</i>      |  |  |  |
| Date: 7/7/2024   | Time: 12:33:44 AM | Sheet 7.2 of 11           |  |  |  |
| Email: lasithnawanjaan123@gmail.com  |                   |                           |  |  |  |
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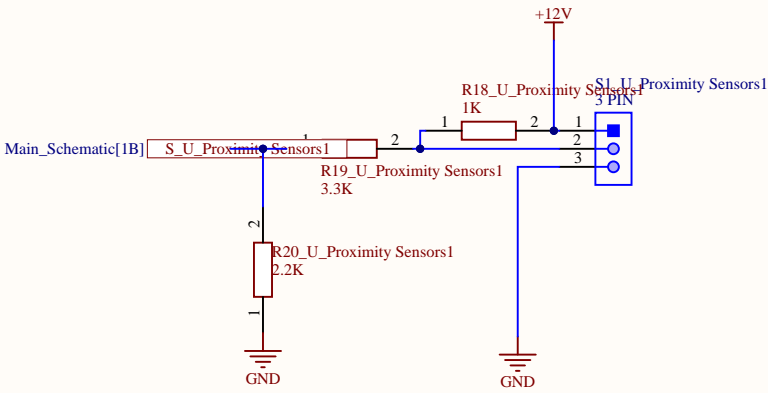



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| Page Contents: <b>Reset.SchDoc</b>                                     |                          |                             | <i>University Of Moratuwa<br/>Moratuwa<br/>Katubedda<br/>10500<br/>Sri Lanka</i> |  |   |
| Drawn By: <i>Lasith Haputhanthri</i>                                   |                          | Checked By: <i>Yasiru</i>   |  |  |   |
| Size: <i>A4</i>  | Number: <i>Doc Num.</i>  | Revision: <i>III</i>        |  |  |   |
| Date: <i>7/7/2024</i>  | Time: <i>12:33:45 AM</i> | Sheet <i>8</i> of <i>11</i> |  |  |   |
| Email: <i>lasithnawanjaan123@gmail.com</i>                             |                          |                             |  |  |   |
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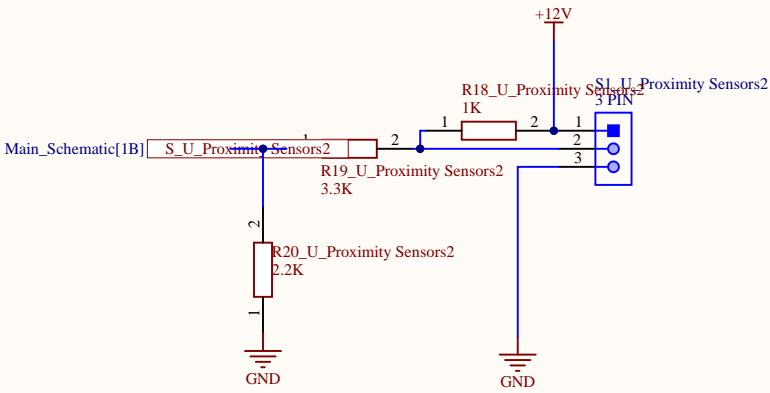





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| Page Contents: <i>7 segment.SchDoc</i>                                     |                          |                              |                                    |  | <i>University Of Moratuwa</i><br><i>Moratuwa</i><br><i>Katubedda</i><br><i>10500</i><br><i>Sri Lanka</i> |   |
| Drawn By: <i>Lasith Haputhanthri</i>                                       |                          |                              | Checked By: <i>Yasiru</i>          |  |  |   |
| Size: <i>A4</i>  | Number: <i>10.</i>       | Revision: <i>III</i>         |                                    |  |  |   |
| Date: <i>7/7/2024</i>  | Time: <i>12:33:47 AM</i> | Sheet <i>10</i> of <i>11</i> |                                    |  |  |   |
| Email: <i>lasithnawanjaan123@gmail.com</i>                                 |                          |                              |                                    |  |  |   |
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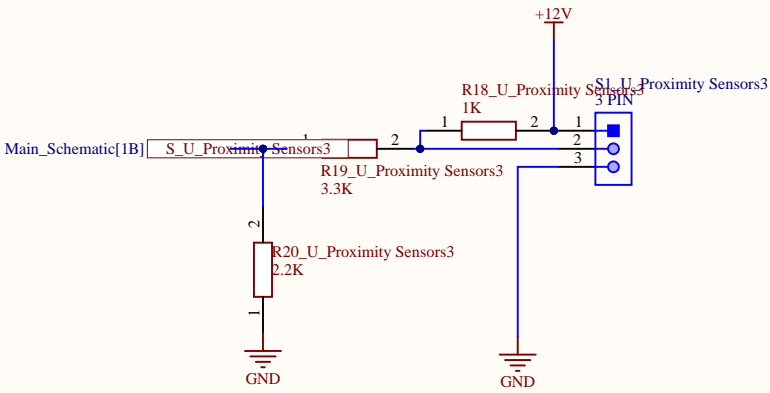


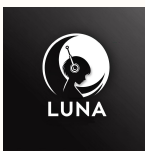
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| Page Contents: Proximity Sensors.SchDoc                                     |                   |                           |                                    | University Of Moratuwa<br>Moratuwa<br>Katubedda<br>10500<br>Sri Lanka |  |   |
| Drawn By: <i>Lasith Haputhanthri</i>  |                   | Checked By: <i>Yasiru</i> |                                    |   |  |   |
| Size: A4  | Number: Doc Num.1 | Revision: <i>III</i>      |                                    |   |  |   |
| Date: 7/7/2024  | Time: 12:33:47 AM | Sheet 11.1 of 11          |                                    |   |  |   |
| Email: lasithnawanjaan123@gmail.com   |                   |                           |                                    |   |  |   |
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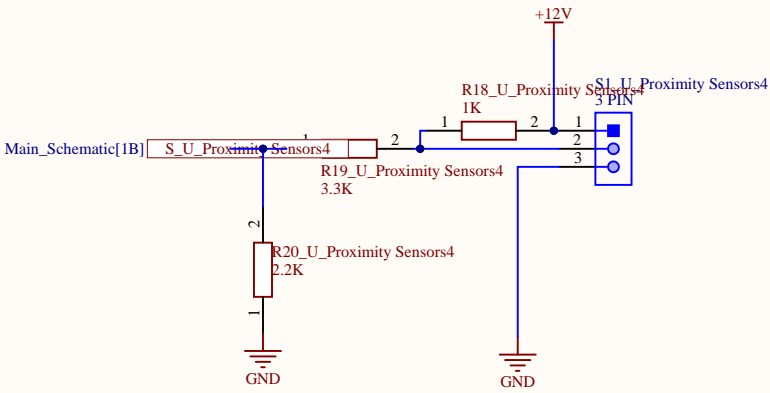


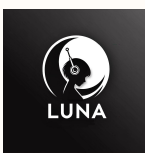
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| Drawn By: <i>Lasith Haputhanthri</i>  |                   | Checked By: <i>Yasiru</i> |                                    |  |  |   |
| Size: A4  | Number: Doc Num.2 | Revision: <i>III</i>      |                                    |  |  |   |
| Date: 7/7/2024  | Time: 12:33:48 AM | Sheet 11.2 of 11          |                                    |  |  |   |
| Email: lasithnawanjaan123@gmail.com   |                   |                           |                                    |  |  |   |
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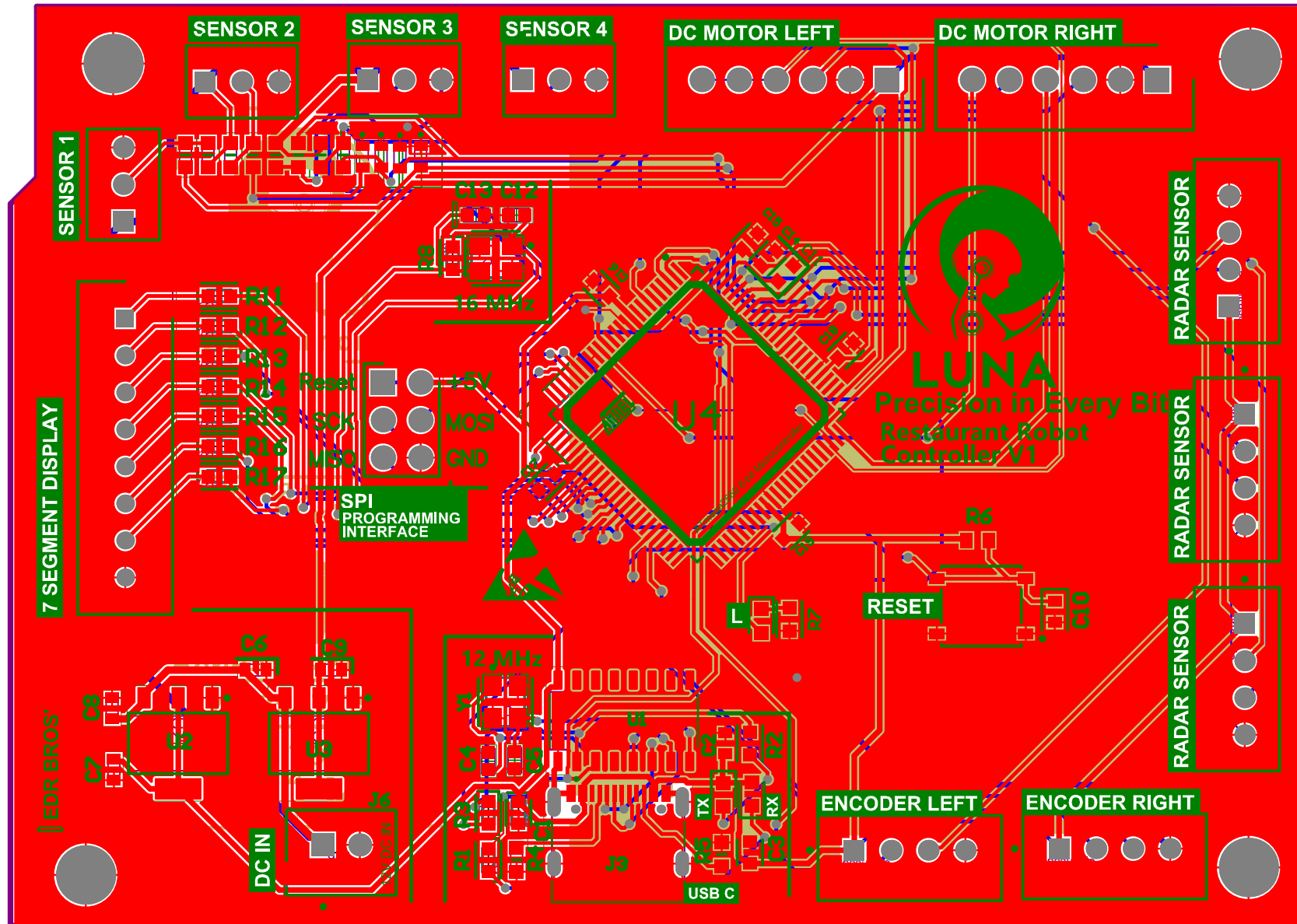




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| Page Contents: Proximity Sensors.SchDoc                                     |                   |                           |                                    | University Of Moratuwa<br>Moratuwa<br>Katubedda<br>10500<br>Sri Lanka |   |
| Drawn By: <i>Lasith Haputhanthri</i>  |                   | Checked By: <i>Yasiru</i> |                                    |   |   |
| Size: A4  | Number: Doc Num.3 | Revision: <i>III</i>      |                                    |   |   |
| Date: 7/7/2024  | Time: 12:33:49 AM | Sheet 11.3 of 11          |                                    |   |   |
| Email: lasithnawanjaan123@gmail.com   |                   |                           |                                    |   |   |
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| Drawn By: <i>Lasith Haputhanthri</i>  |                   | Checked By: <i>Yasiru</i> |                                    |  |  |   |
| Size: A4  | Number: Doc Num.4 | Revision: <i>III</i>      |                                    |  |  |   |
| Date: 7/7/2024  | Time: 12:33:49 AM | Sheet 11.4 of 11          |                                    |  |  |   |
| Email: lasithnawanjaan123@gmail.com   |                   |                           |                                    |  |  |   |
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| Line # | Name               | Description  | Designator  | Revision ID | Revision Status | Quantity | Manufacturer 1            | Manufacturer Part Number 1 | Manufacturer Lifecycle 1 | Supplier 1 | Supplier Part Number 1 | Supplier Unit Price 1 | Supplier Subtotal 1 |
|--------|--------------------|--|---|-------------|-----------------|----------|---------------------------|----------------------------|--------------------------|------------|------------------------|-----------------------|---------------------|
|        | 0.1uF              | CC0603KRX7R9B8104 CAP CER 0.1UF 50V X7R 0603   | C1, C3, C11, C15, C16, C17, C18, C19  |             |                 | 8        |                           |                            |                          |            |                        |                       |                     |
|        | 10uF               | CL10A106KP8NNNC Capacitor  | C2, C6, C7, C8, C9, C10, C14  |             |                 | 7        |                           |                            |                          |            |                        |                       |                     |
|        | 22pF               | CC0603JRNPO9BN220 Chip Capacitor, 22 pF, +/- 5%, 50 V, -55 to 125 degC, 0603 (1608 Metric), RoHS, Tape and Reel  | C4, C5, C12, C13  |             |                 | 4        |                           |                            |                          |            |                        |                       |                     |
|        | 8 PIN              | Connector  | Display   |             |                 | 1        |                           |                            |                          |            |                        |                       |                     |
|        | TYPE-C-31-M-12     | USB Connectors 24 Receptacle 1 8.94*7.3mm RoHS   | J3  |             |                 | 1        |                           |                            |                          |            |                        |                       |                     |
|        | 4 PIN              | CONN HEADER VERT 4POS 2.5MM  | J4_U_Encoders1, J4_U_Encoders2, J7_U_Ultrasonic Sensor3, J7_U_Ultrasonic Sensors1, J7_U_Ultrasonic Sensors2 |             |                 | 5        | JST                       | B4B-XH-A(LF)(SN)           | Volume Production        |            |                        |                       |                     |
|        | 6 PIN              | Connector  | J5_U_Motor Drivers1, J5_U_Motor Drivers2  |             |                 | 2        |                           |                            |                          |            |                        |                       |                     |
|        | 2 PIN              | CONN HEADER VERT 2POS 2.5MM  | J6  |             |                 | 1        | JST                       | B2B-XH-AM(LF)(SN)          | Volume Production        |            |                        |                       |                     |
|        | 6 Pin              | Connector  | J10   |             |                 | 1        |                           |                            |                          |            |                        |                       |                     |
|        | Red                | LED  | LED1, LED2, LED3  |             |                 | 3        |                           |                            |                          |            |                        |                       |                     |
|        | 1.5K, 1M           | AF0603FR-071KSL Anti-Sulfurated Chip Resistors Automotive Grade 1.5kQ 1% 100ppm/C 0603, Anti-Sulfurated Chip Resistors Automotive Grade 1.5kQ 1% 100ppm/C 0603   | R1, R2, R3, R7, R8, R11, R12, R13, R14, R15, R16, R17   |             |                 | 12       |                           |                            |                          |            |                        |                       |                     |
|        | 5.1K               | 0603WAF5101T5E Resistor  | R4  |             |                 | 1        |                           |                            |                          |            |                        |                       |                     |
|        | 5.1K               | 0603WAF5101T5E Resistor  | R5  |             |                 | 1        |                           |                            |                          |            |                        |                       |                     |
|        | 10K                | RC0603JR-0710KL Resistor, 10 KOhm, +/- 5%, 100 mW, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel  | R6  |             |                 | 1        |                           |                            |                          |            |                        |                       |                     |
|        | 1K                 | Resistor   | R18_U_Proximity Sensors1, R18_U_Proximity Sensors2, R18_U_Proximity Sensors3, R18_U_Proximity Sensors4      |             |                 | 4        |                           |                            |                          |            |                        |                       |                     |
|        | 3.3K               | Resistor RMCF0603JT3K30  | R19_U_Proximity Sensors1, R19_U_Proximity Sensors2, R19_U_Proximity Sensors3, R19_U_Proximity Sensors4      |             |                 | 4        |                           |                            |                          |            |                        |                       |                     |
|        | 2.2K               | Resistor   | R20_U_Proximity Sensors1, R20_U_Proximity Sensors2, R20_U_Proximity Sensors3, R20_U_Proximity Sensors4      |             |                 | 4        |                           |                            |                          |            |                        |                       |                     |
|        | 3 PIN              | Male Header, Pitch 2.5 mm, 1 x 3 Position, Height 10.4 mm, Tail Length 3.6 mm, -20 to 95 degC, RoHS, Bulk  | S1_U_Proximity Sensors1, S1_U_Proximity Sensors2, S1_U_Proximity Sensors3, S1_U_Proximity Sensors4          |             |                 | 4        |                           |                            |                          |            |                        |                       |                     |
|        | PT5526SK15SMTR2LFS | TACT 5.2X 5.2, 1.5 MM H, 260GF,  | SW1   |             |                 | 1        | ITT C&K                   | PT5526SK15SMTR2LFS         |                          |            |                        |                       |                     |
|        | CH340G             | USB Interface Integrated Circuit   | U1  |             |                 | 1        |                           |                            |                          |            |                        |                       |                     |
|        | LM1117MPX-5.0      | 800mA Low-Dropout Linear Regulator, 4-pin SOT-223  | U2, U3  |             |                 | 2        | Ti National Semiconductor | LM1117MPX-5.0              | End of Life              |            |                        |                       |                     |
|        | ATMEGA2560-16AUR   | IC MCU 8BIT 256KB FLASH 100TQFP  | U4  |             |                 | 1        | Microchip                 | ATMEGA2560-16AUR           | Volume Production        |            |                        |                       |                     |
|        | 12MHz, 16MHz       | ABM8G-12.000MHZ-18-D2Y-T Crystal 12MHz ±20ppm (Tol) ±30ppm (Stability) 18pF FUND 120Q 4-Pin SMD T/R, ABM8G-16.000MHZ-18-D2Y-T Crystal 16MHz ±20ppm (Tol) ±30ppm (Stability) 18pF FUND 120Q 4-Pin SMD T/R | Y1, Y2  |             |                 | 2        |                           |                            |                          |            |                        |                       |                     |