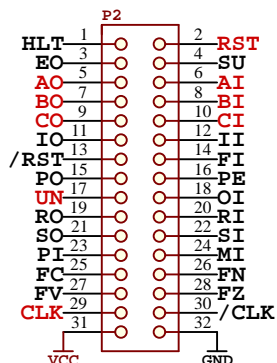


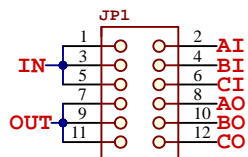


## Control BUS Connector

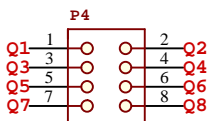


Register board setup.  
Setting up which are the  
active signals for the  
register. Define the  
register role A, B or C.

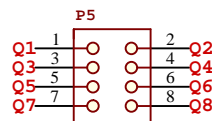
## REGISTER SETUP



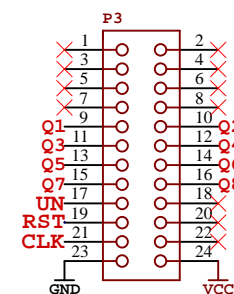
## Direct Data OUT



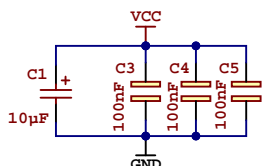
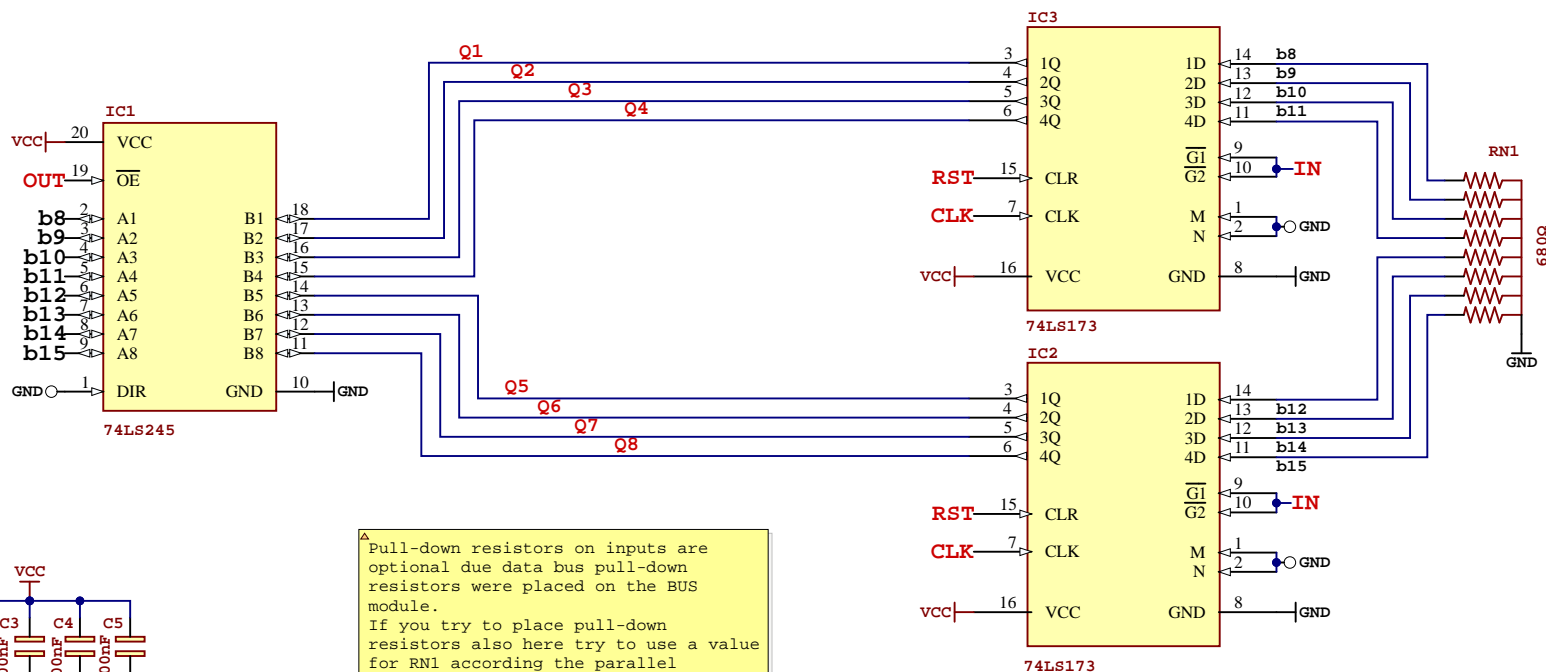
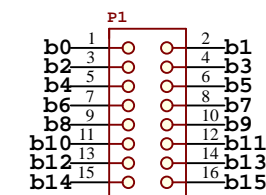
## Direct Data OUT



## OUTPUT Connector

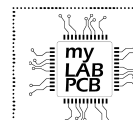


## Data BUS Connector



Decoupling Capacitors

Pull-down resistors on inputs are  
optional due data bus pull-down  
resistors were placed on the BUS  
module.  
If you try to place pull-down  
resistors also here try to use a value  
for RN1 according the parallel  
resistors formula.  
 $1/RT = 1/R1 + 1/R2 + \dots + 1/RN$  to get a  
final value between 100 and 200Ω

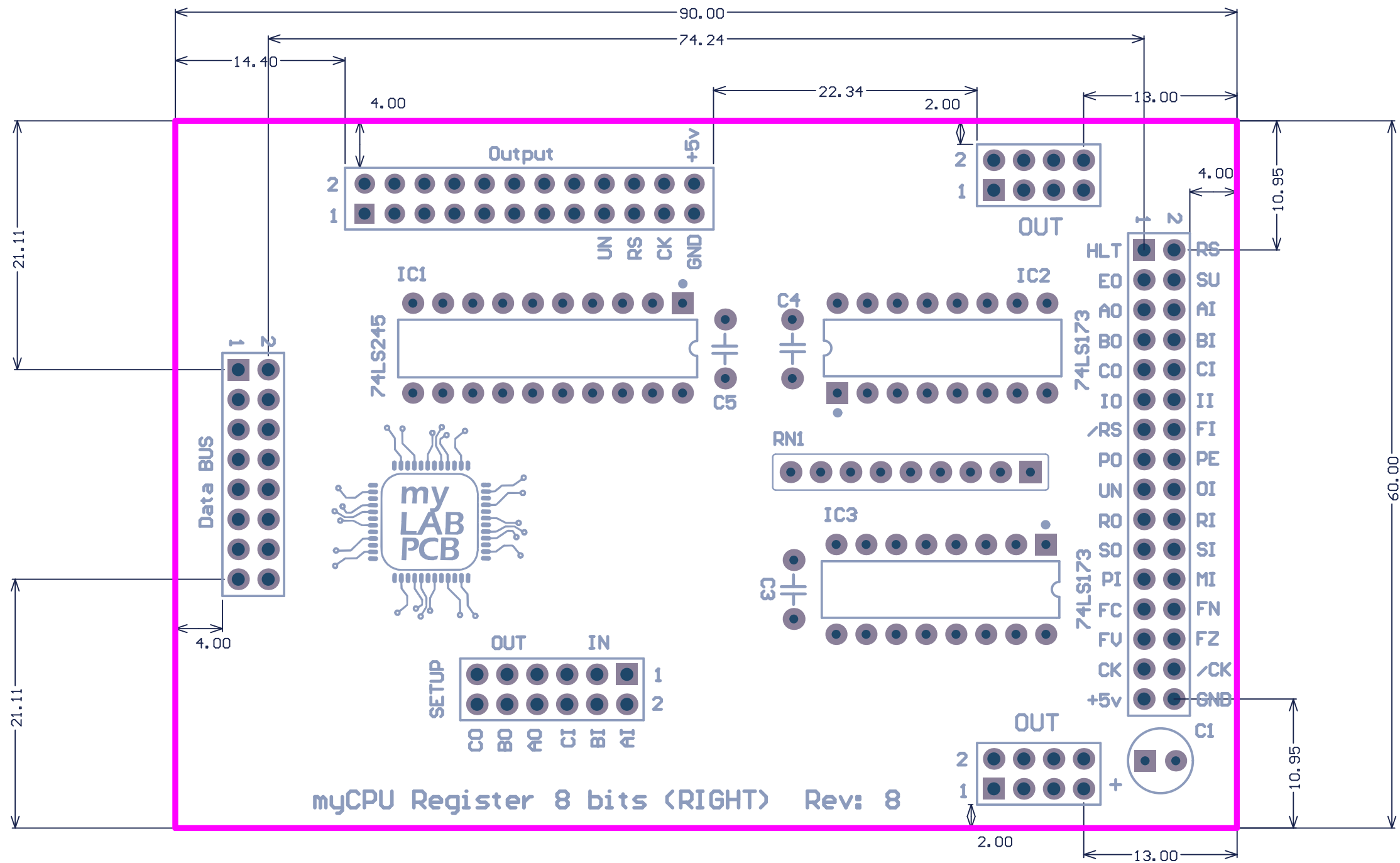


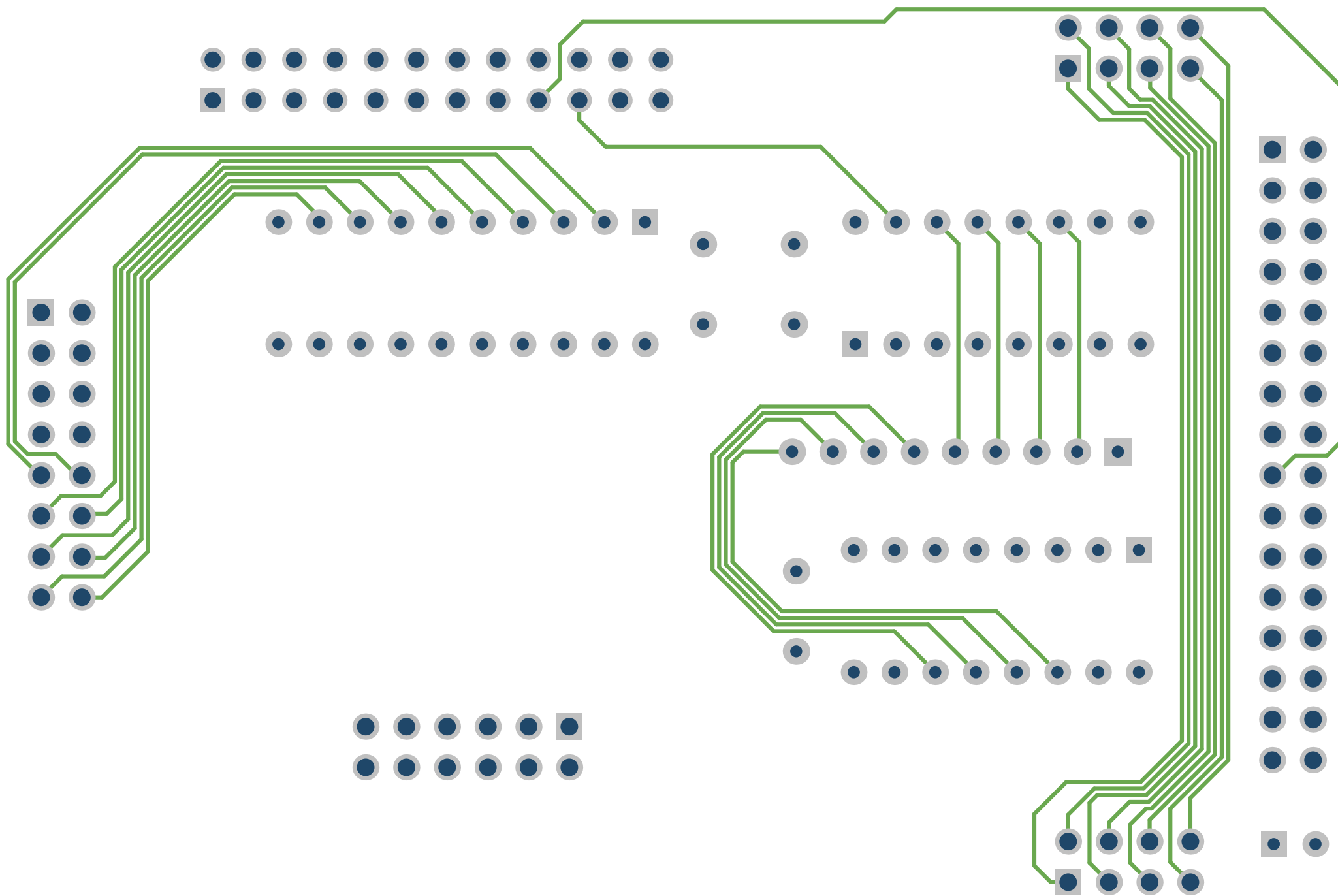
**Project:** myCPU Register 8 bit RIGHT

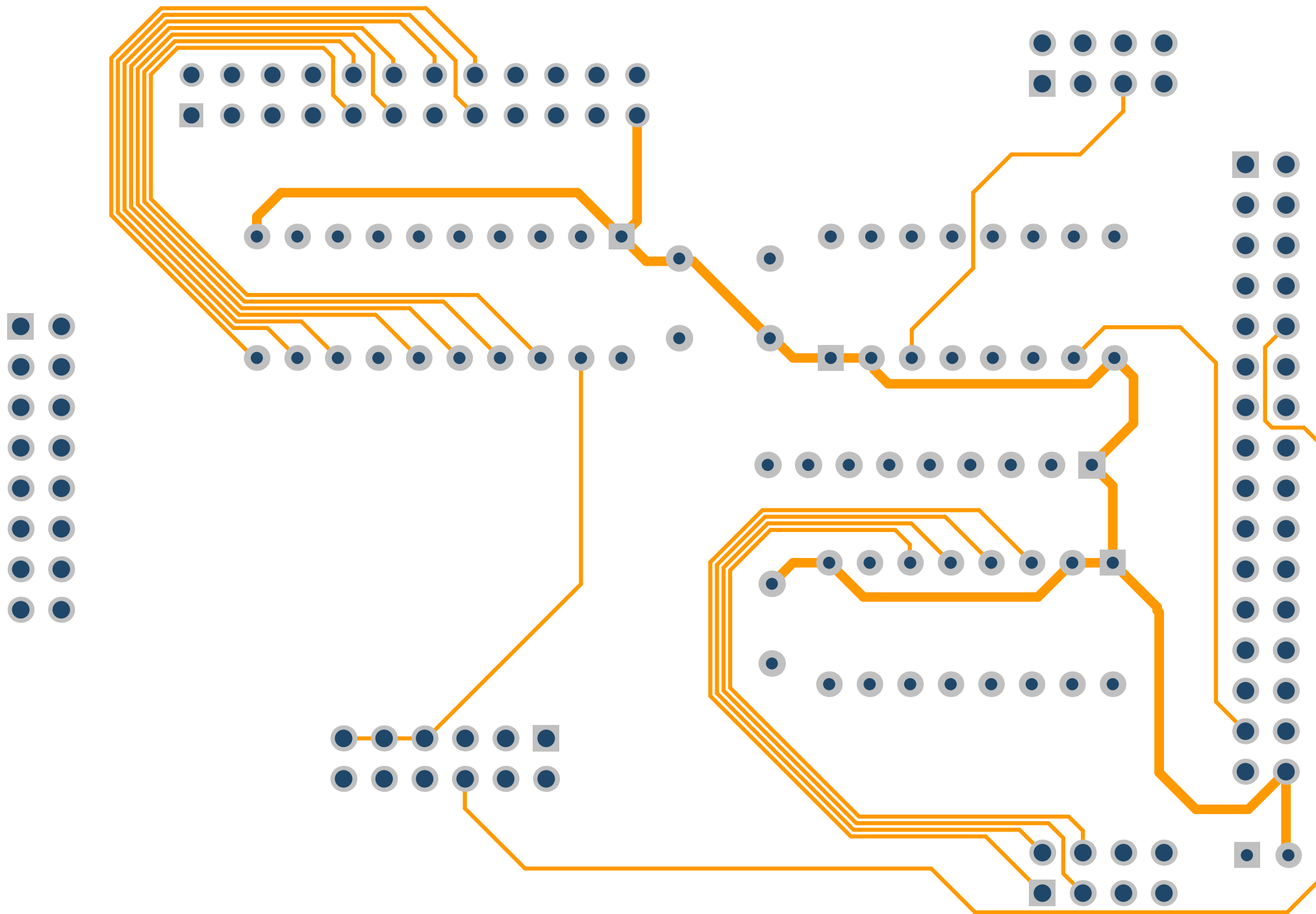
**Revision:** 8

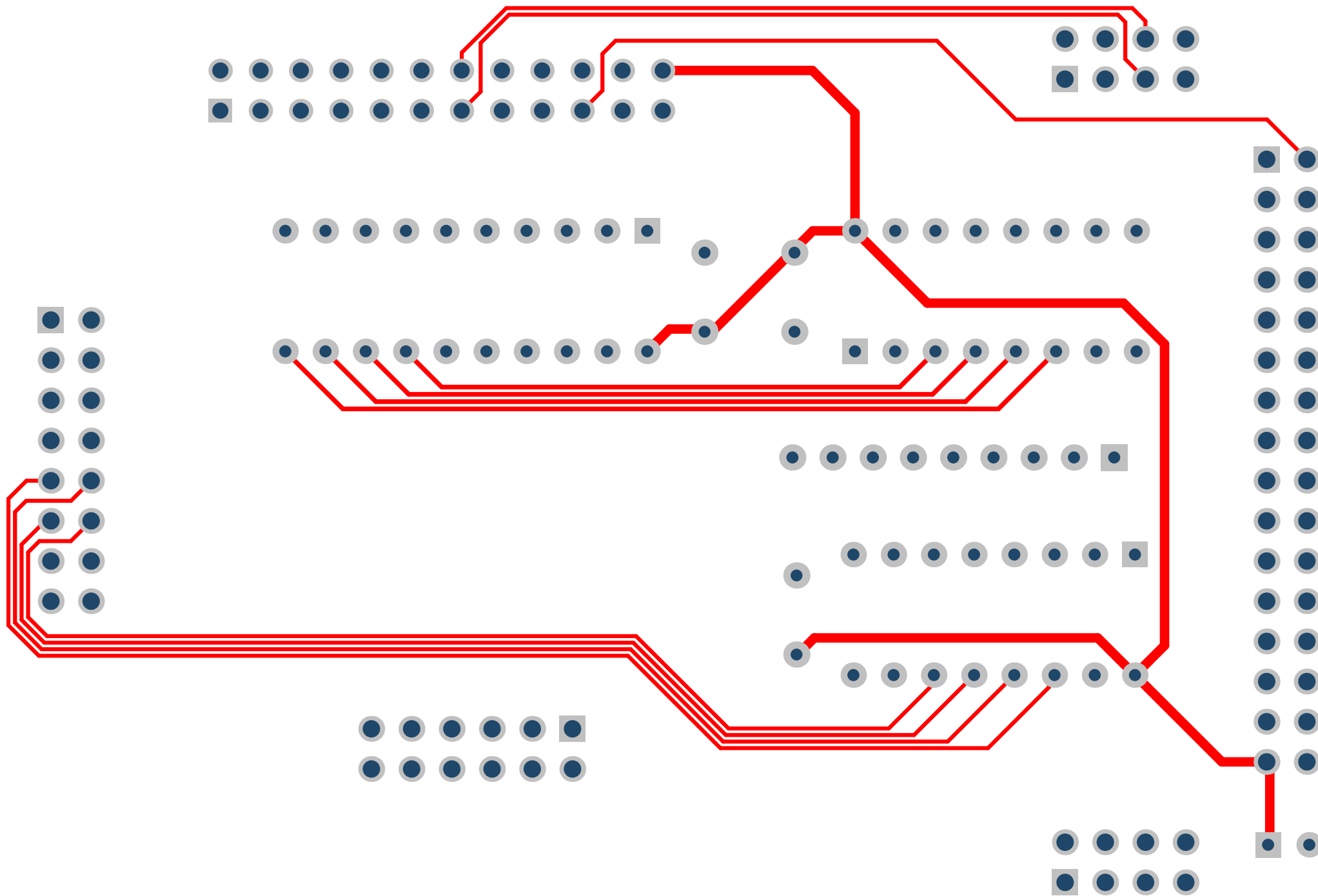
**Date:** 03-Jun-23

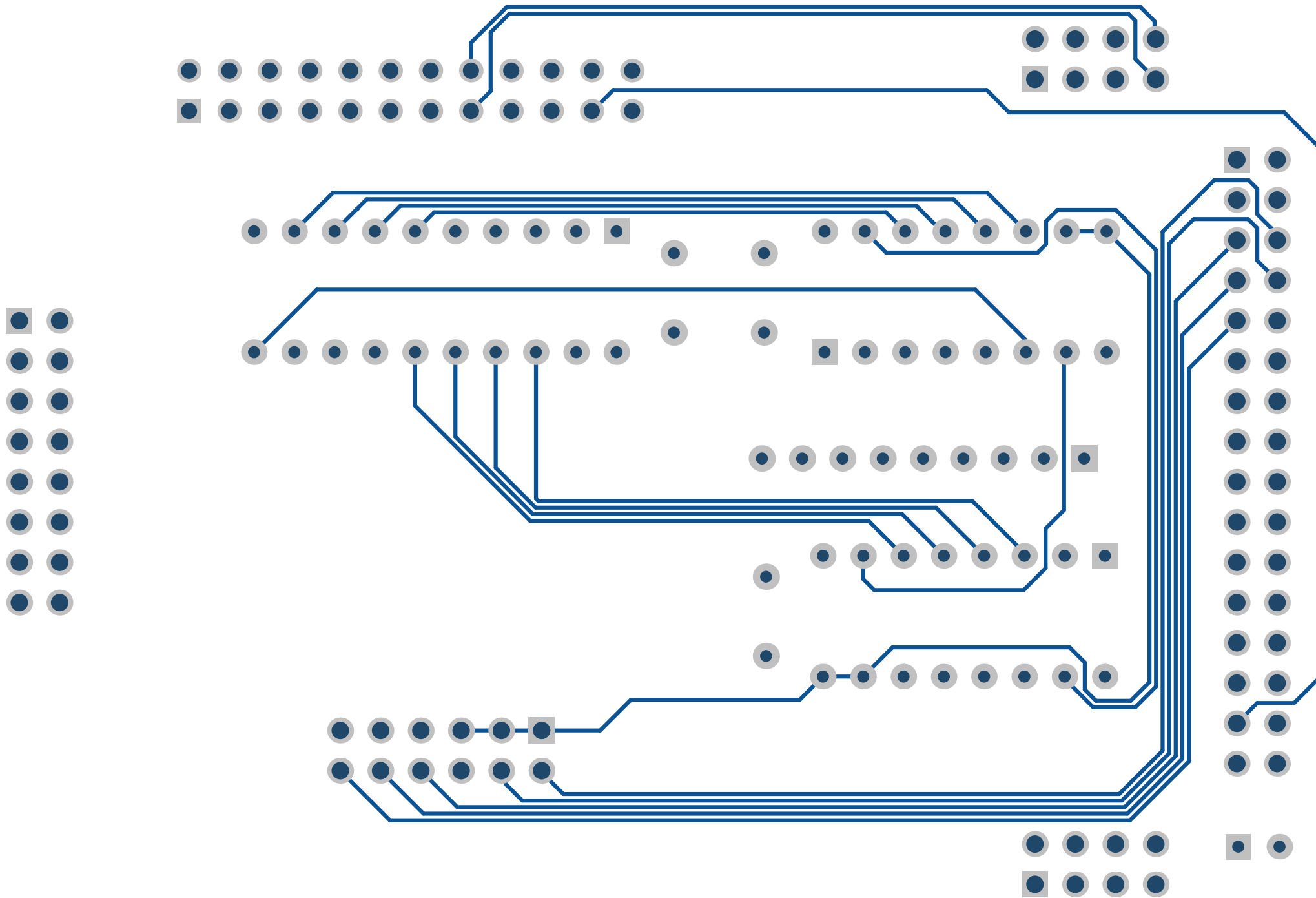
**Author:** Rafa Hernández















# Bill of Materials

Designator	Description	Value	Q
C1	Electrolytic capacitor 16v/50v	10 $\mu$ F	1
C3, C4, C5	Ceramic or tantalum capacitor	100nF	3
IC1	Non inverting bus transceiver	74LS245	1
IC2, IC3	4-bit D-Type Register with 3 state outputs	74LS173	2
JP1	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 12 $\times$	12p	1
P1	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 16 $\times$	16p	1
P2	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 32 $\times$	32p	1
P3	Socket Header, THT, pitch 2.54mm, Dual Row, Vertical,	24p	1
P4, P5	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 8p	8p	2
RN1	Resistor array 8 elements, 9 pins	680 $\Omega$	1



# Assembly List

Designator	Description	Value
C1	Electrolytic capacitor 16v/50v	10 $\mu$ F
C3	Ceramic or tantalum capacitor	100nF
C4	Ceramic or tantalum capacitor	100nF
C5	Ceramic or tantalum capacitor	100nF
IC1	Non inverting bus transceiver	74LS245
IC2	4-bit D-Type Register with 3 state outputs	74LS173
IC3	4-bit D-Type Register with 3 state outputs	74LS173
JP1	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 12p	12p
P1	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 16p	16p
P2	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 32p	32p
P3	Socket Header, THT, pitch 2.54mm, Dual Row, Vertical, 24p	24p
P4	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 8p	8p
P5	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 8p	8p
RN1	Resistor array 8 elements, 9 pins	680 $\Omega$