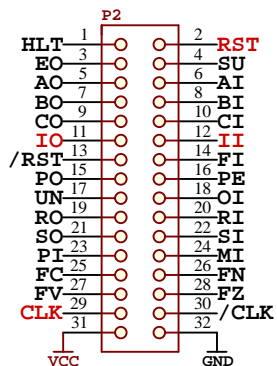
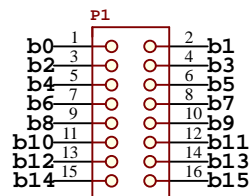


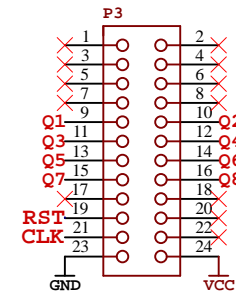
Control BUS Connector



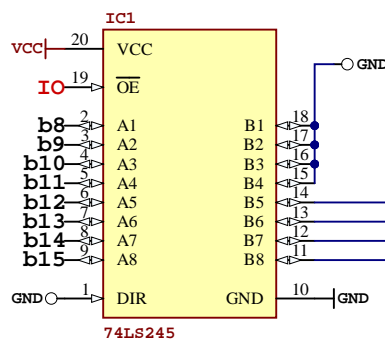
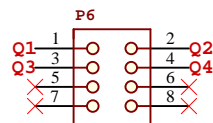
Data BUS Connector



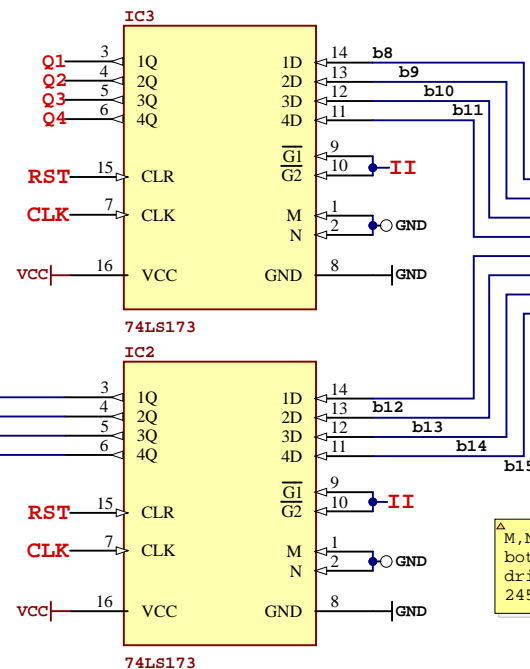
OUTPUT Connector



Instruction Decoder Connector

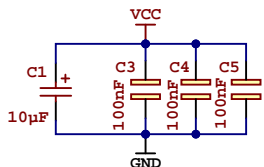


A Most significant bits from Q4 to Q1 are not exposed to data BUS, only a 4 bits address is supported in the first release.

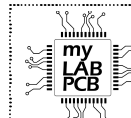


A G1, G2 input control. Set both to LOW to load all inputs into flip-flops

A M,N output control. Set both to LOW allow driving all outputs to 245.



Decoupling Capacitors

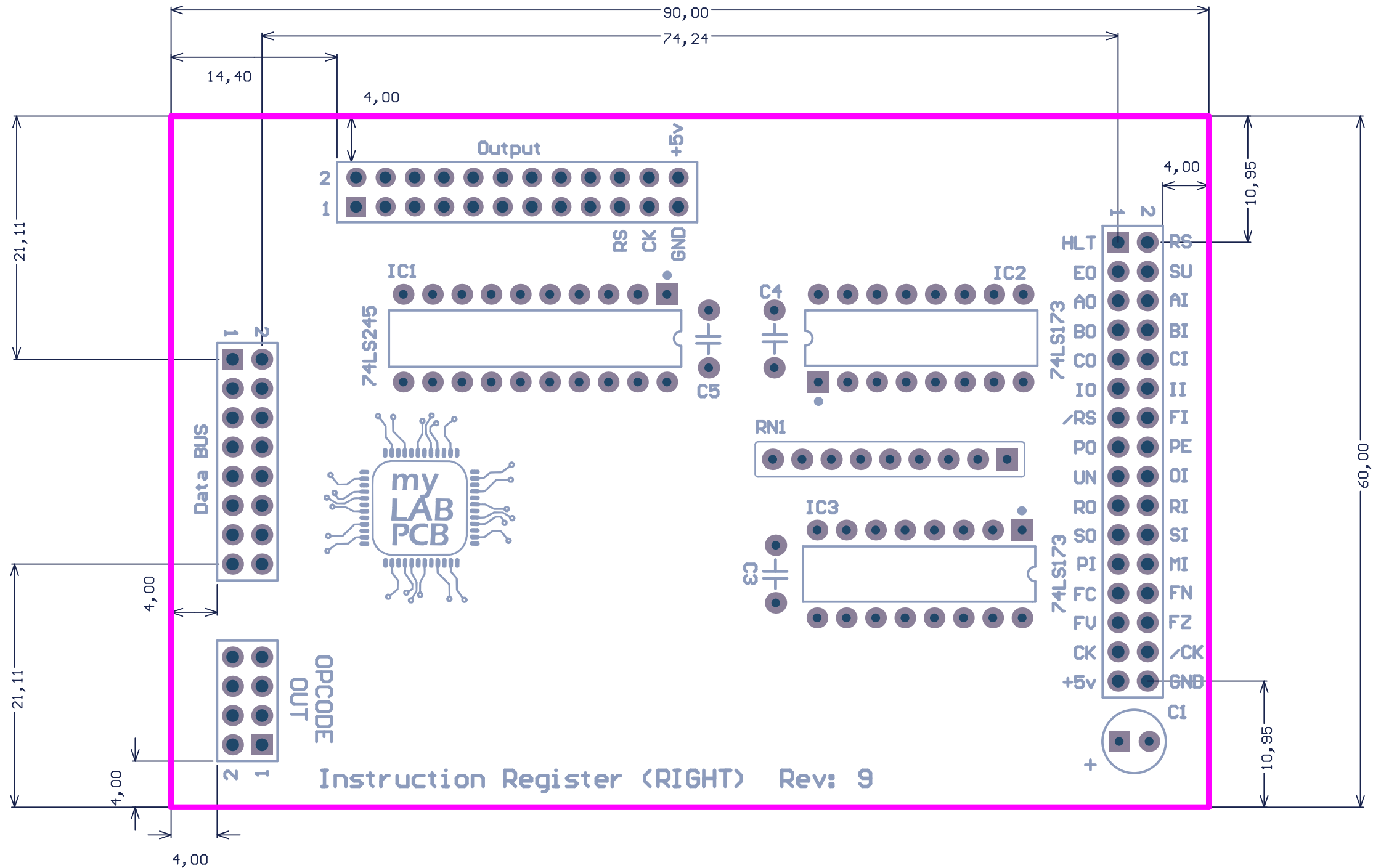


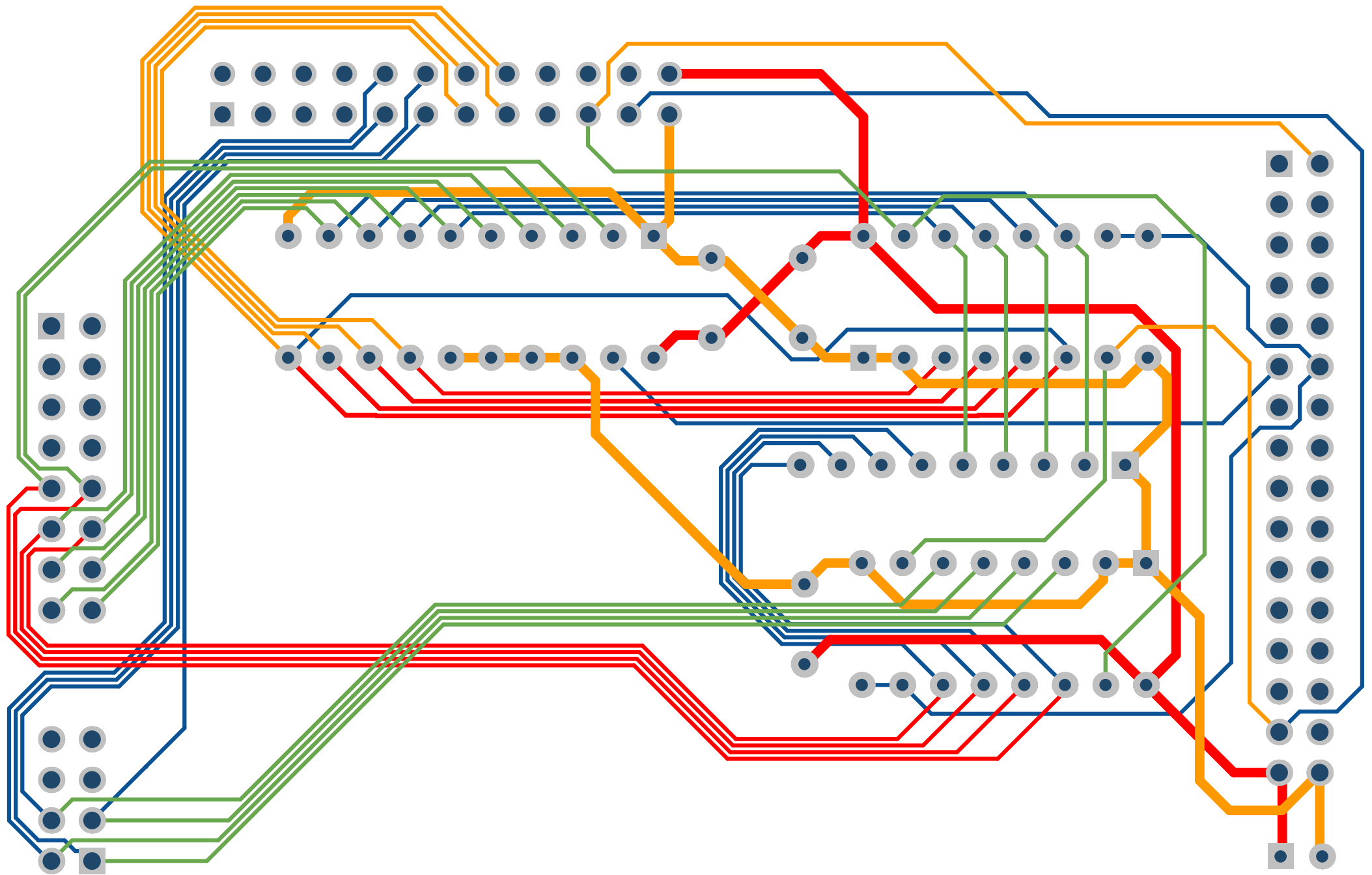
Project: myCPU Instruction Register 8 bit R

Revision: 9

Date: 18/10/2021

Author: Rafa Hernández







Bill of Materials

| Designator | Description | Value | Q |
|------------|---|--------------|---|
| C1 | Electrolytic capacitor 16v/50v | 10 μ 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 |
| P1 | Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 16p | 16p | 1 |
| P2 | Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 32p | 32p | 1 |
| P3 | Socket Header, THT, pitch 2.54mm, Dual Row, Vertical, 24p | 24p | 1 |
| P6 | Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 8p | 8p | 1 |
| RN1 | Resistor array 8 elements,9 pins | 330 Ω | 1 |



Assembly List

| Desig. | Description | Value |
|--------|---|--------------|
| C1 | Electrolytic capacitor 16v/50v | 10 μ 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 |
| 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 |
| P6 | Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 8p | 8p |
| RN1 | Resistor array 8 elements,9 pins | 330 Ω |