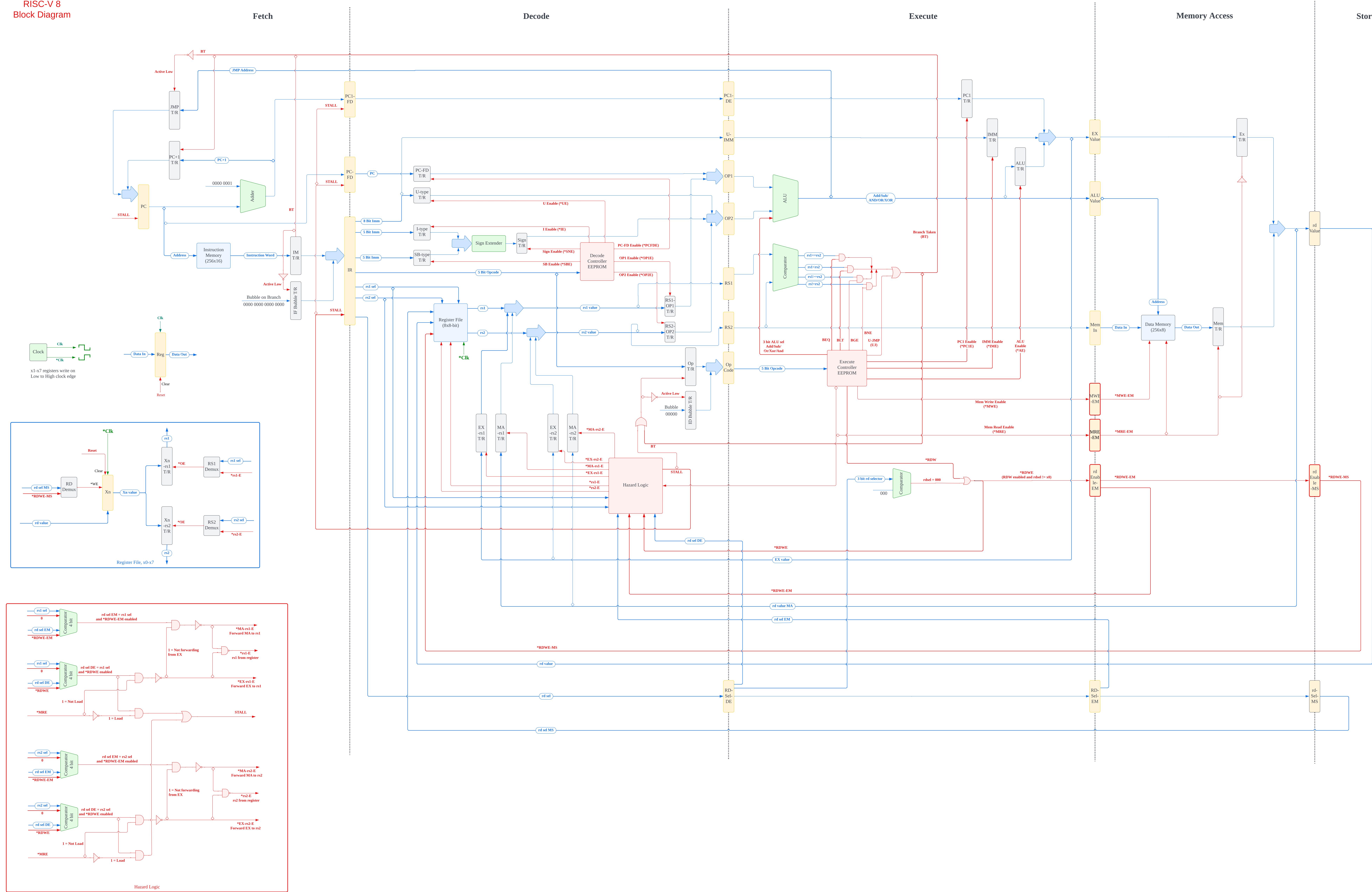
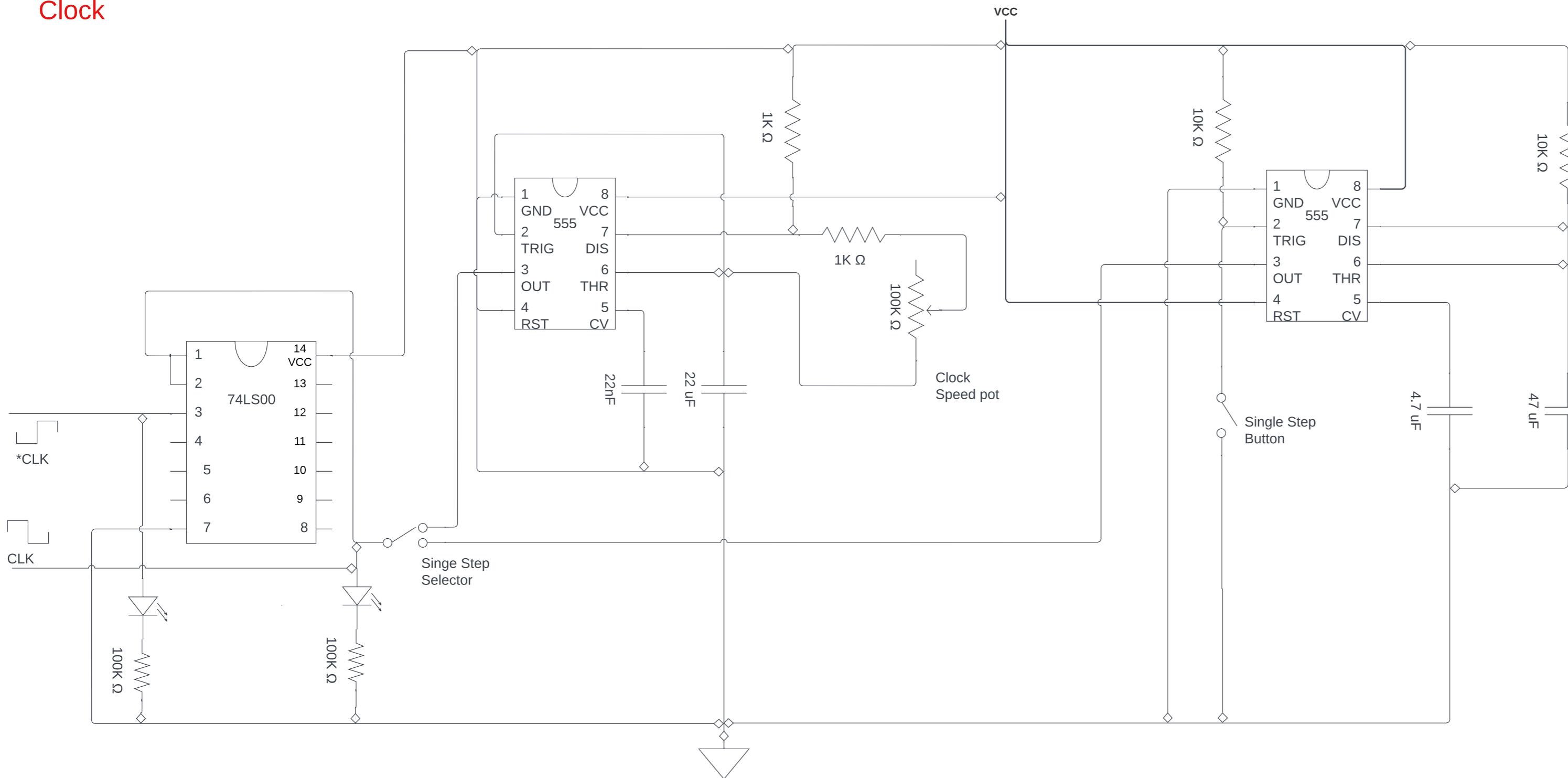
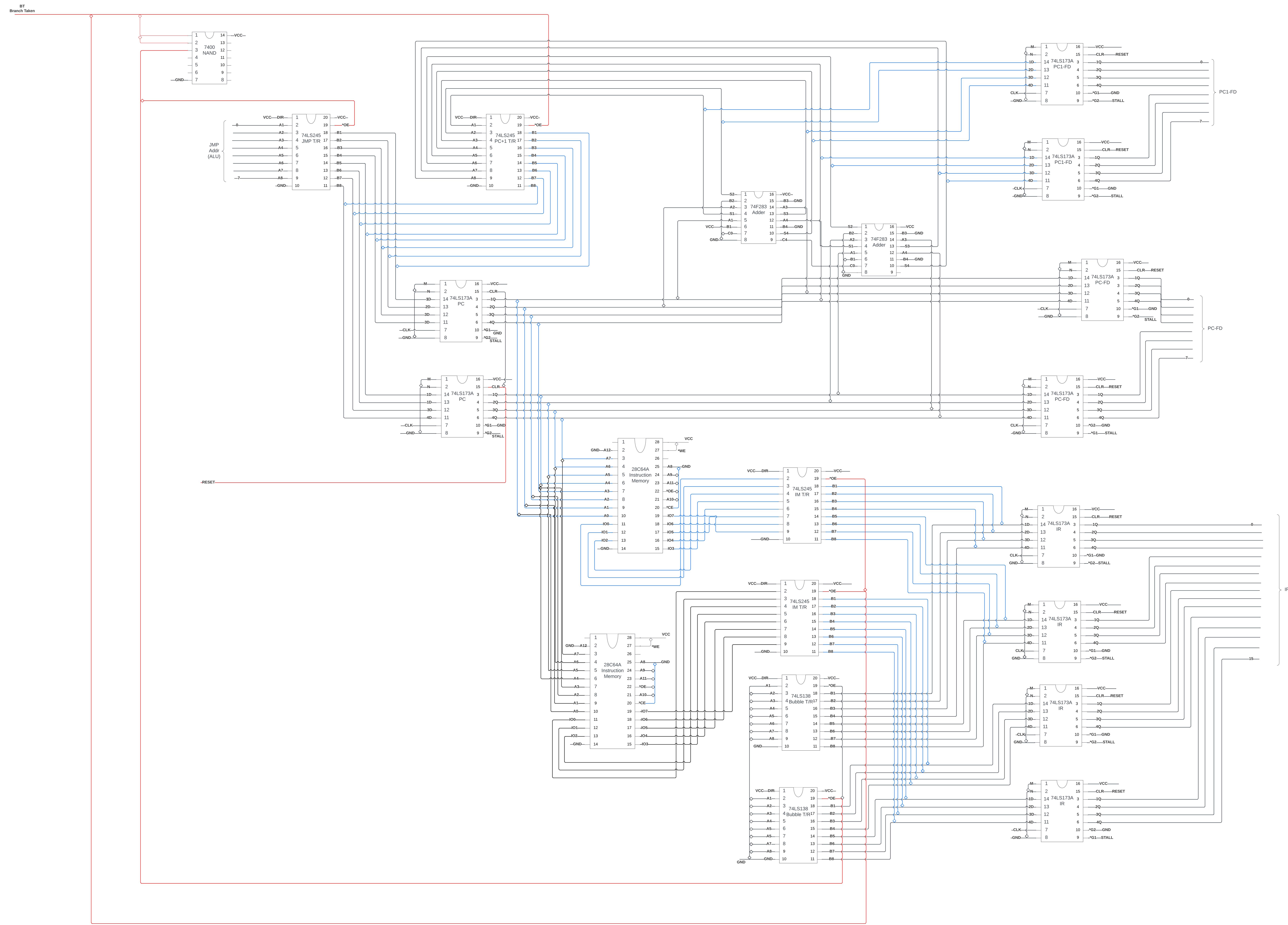


# RISC-V 8 Block Diagram

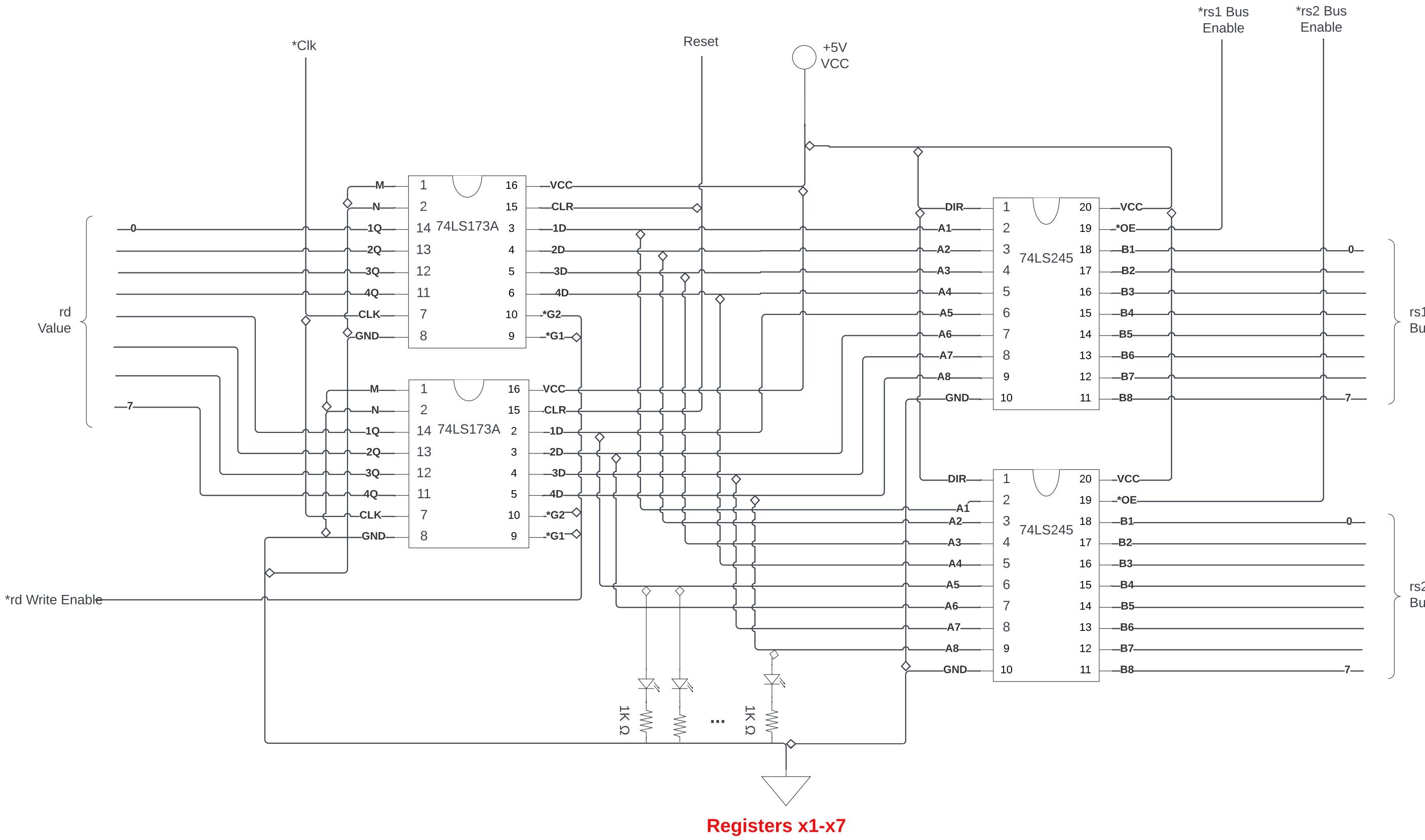


## Clock

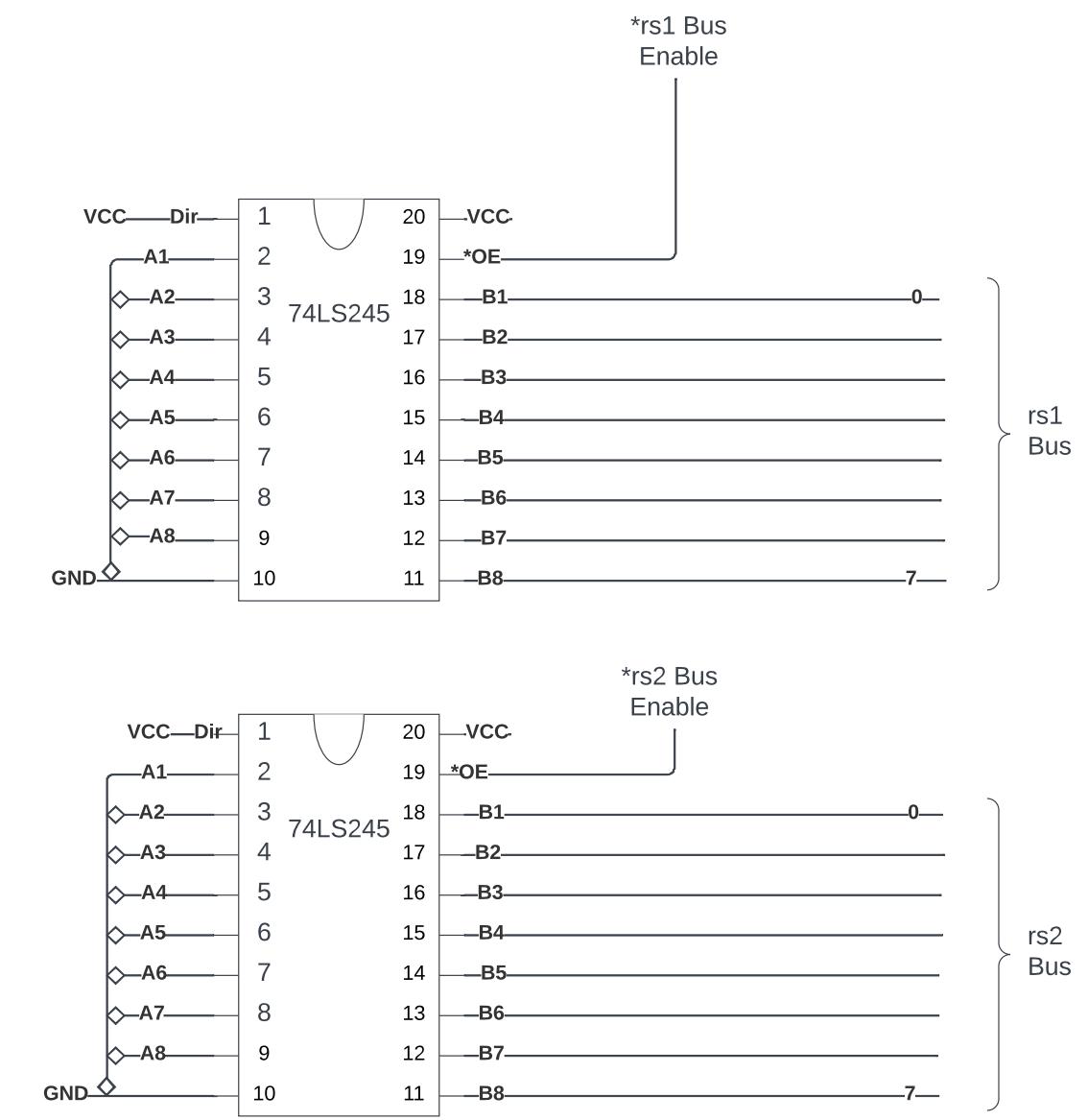




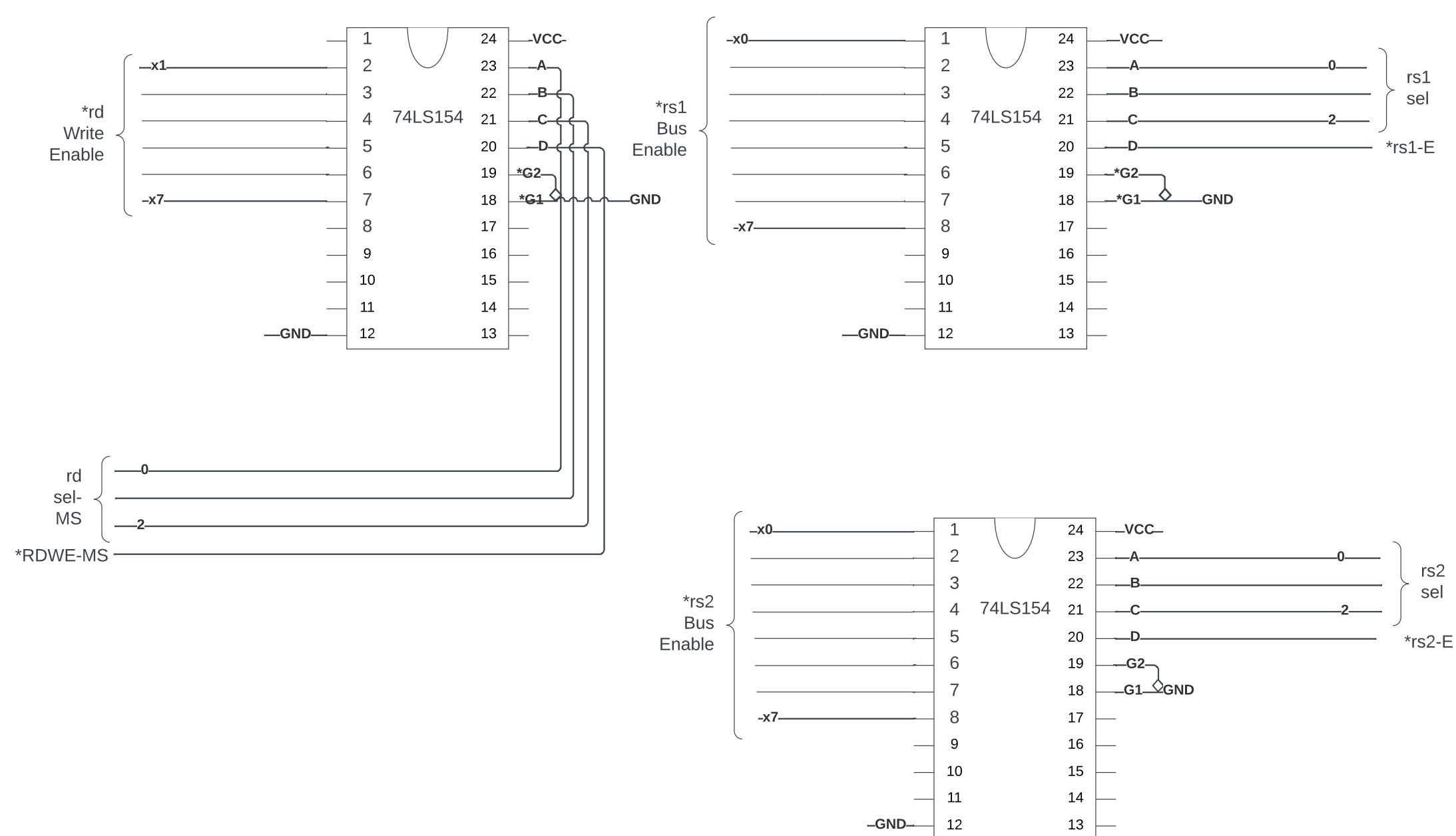
## Register File



Registers x1-x7

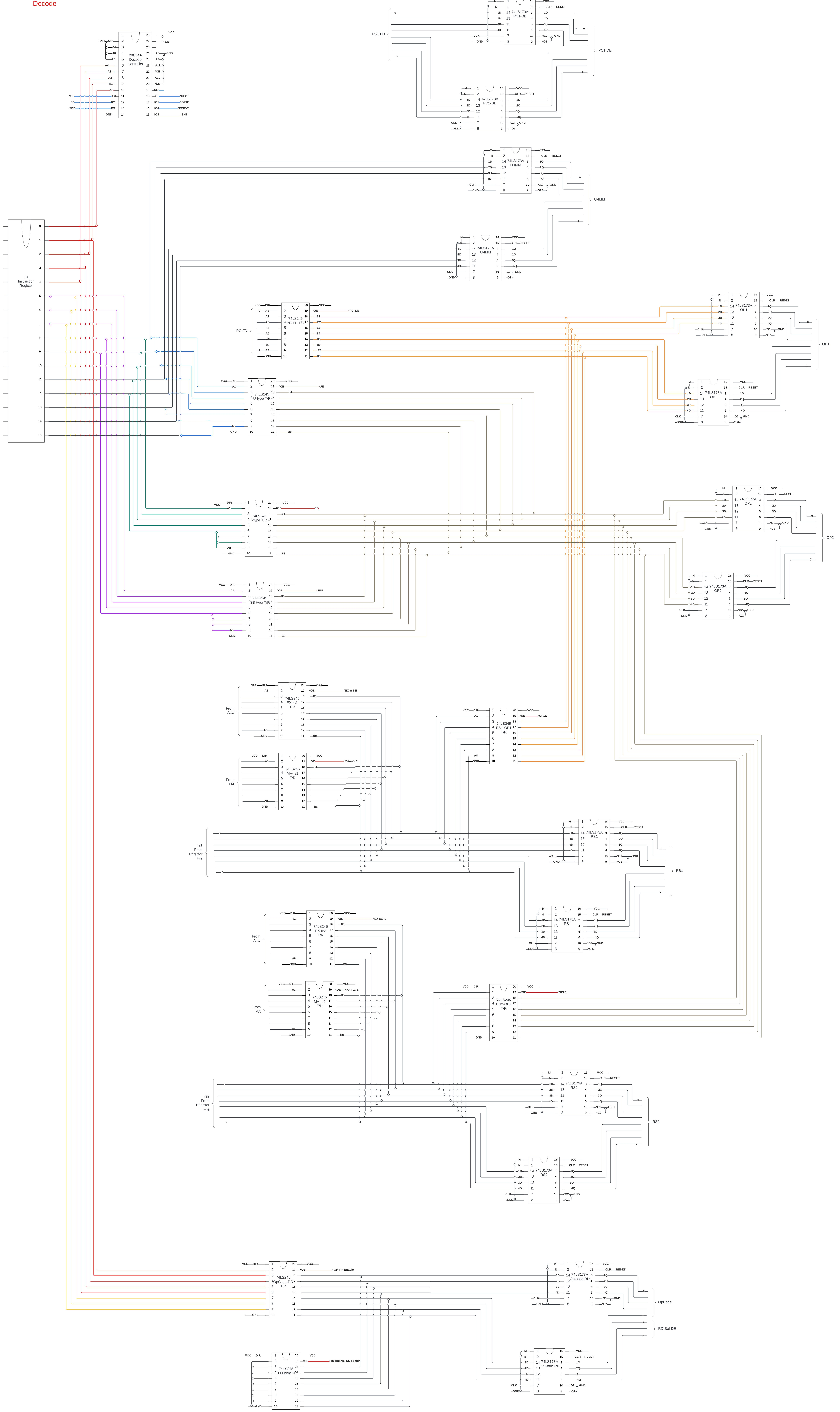


Registers x0

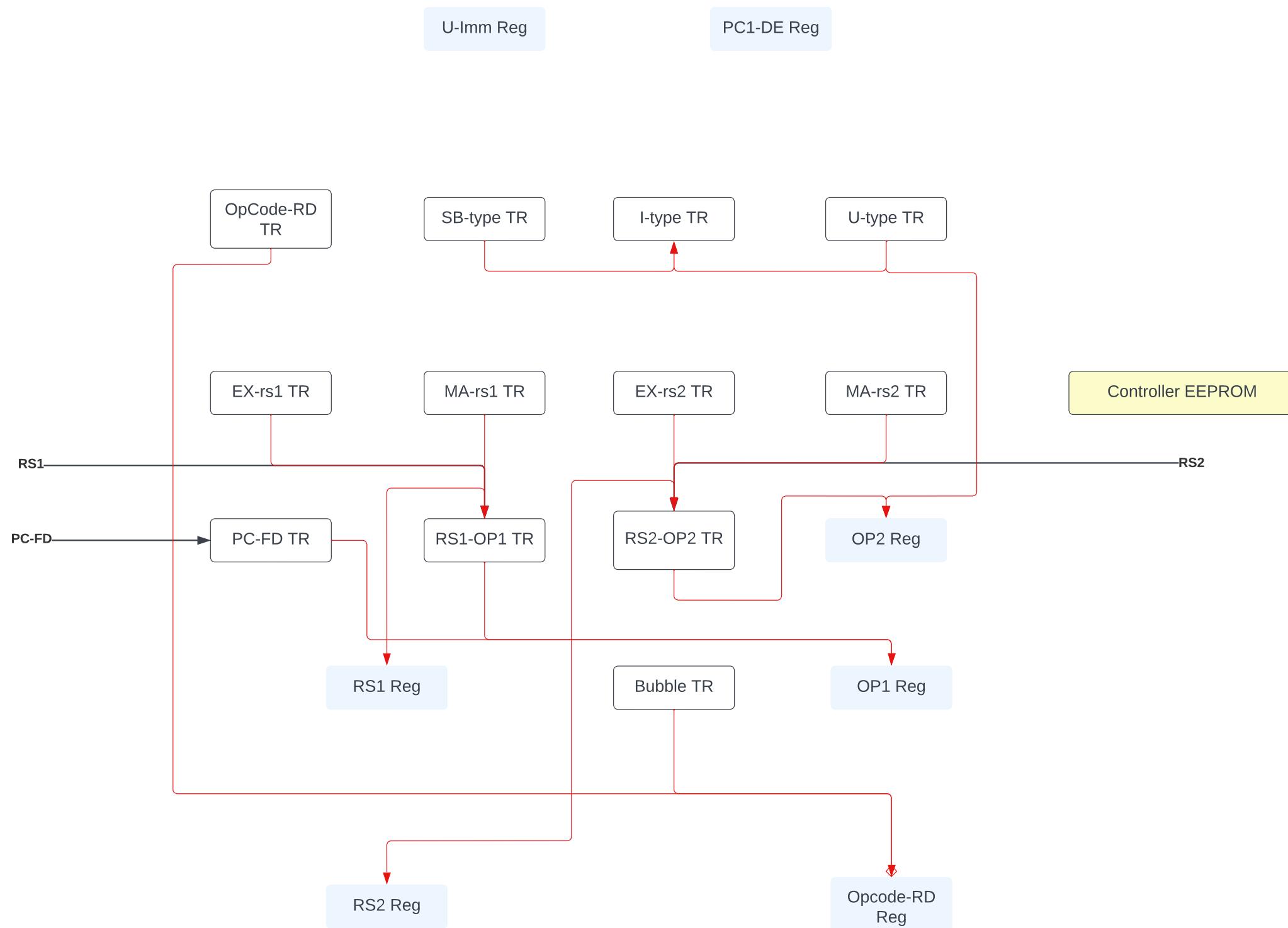


Register Demux

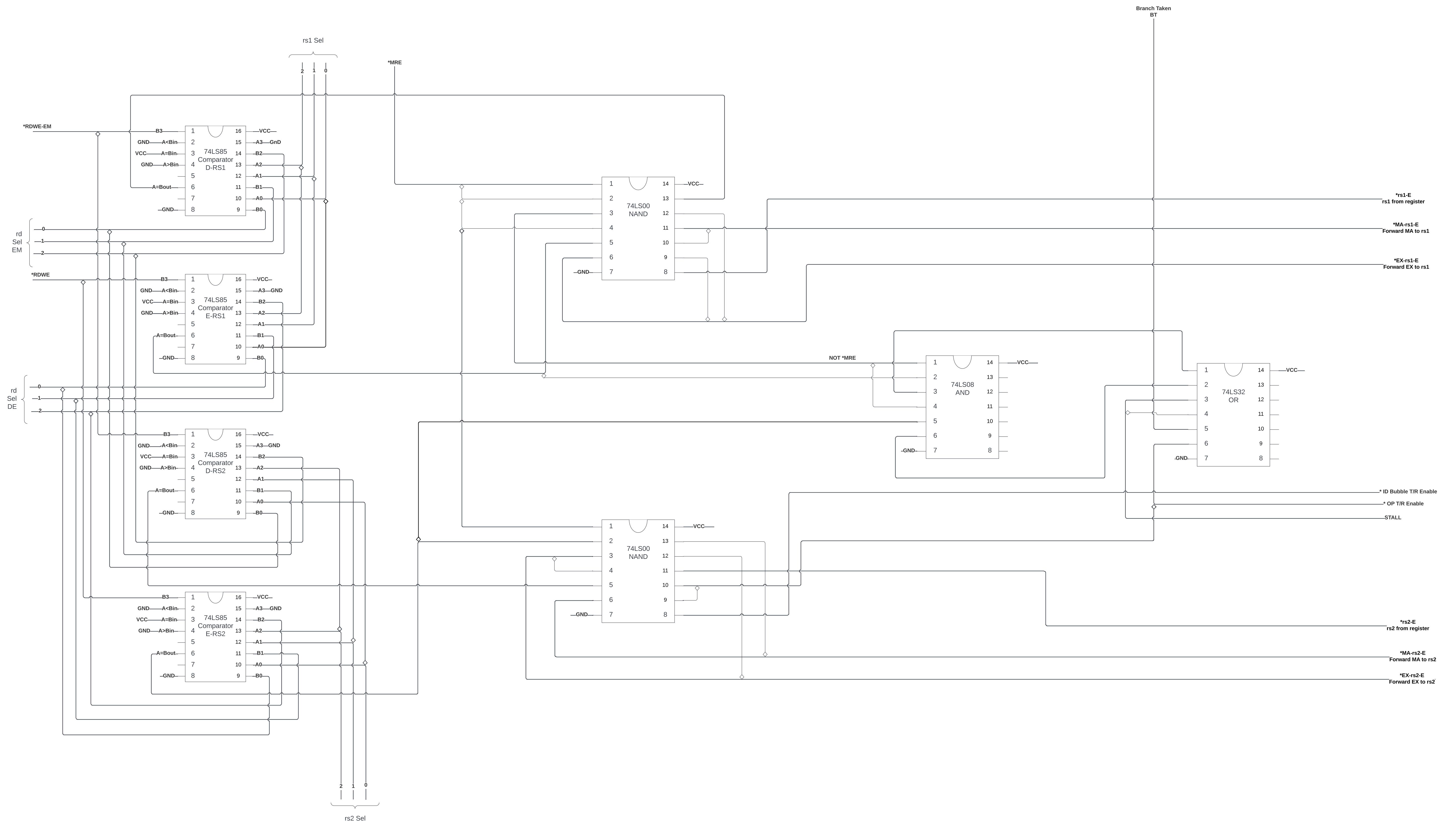
## Decode



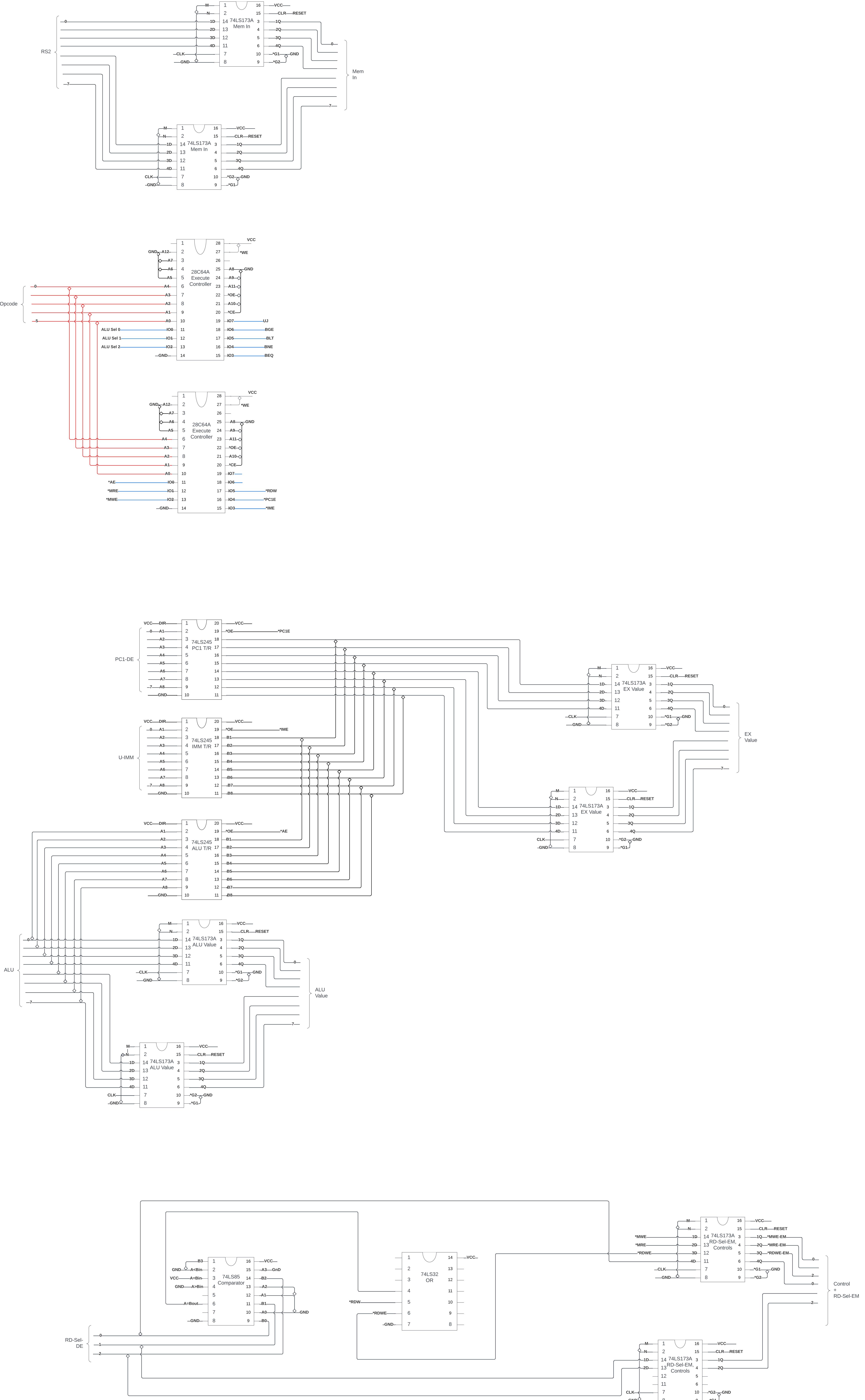
## Decode IC Layout

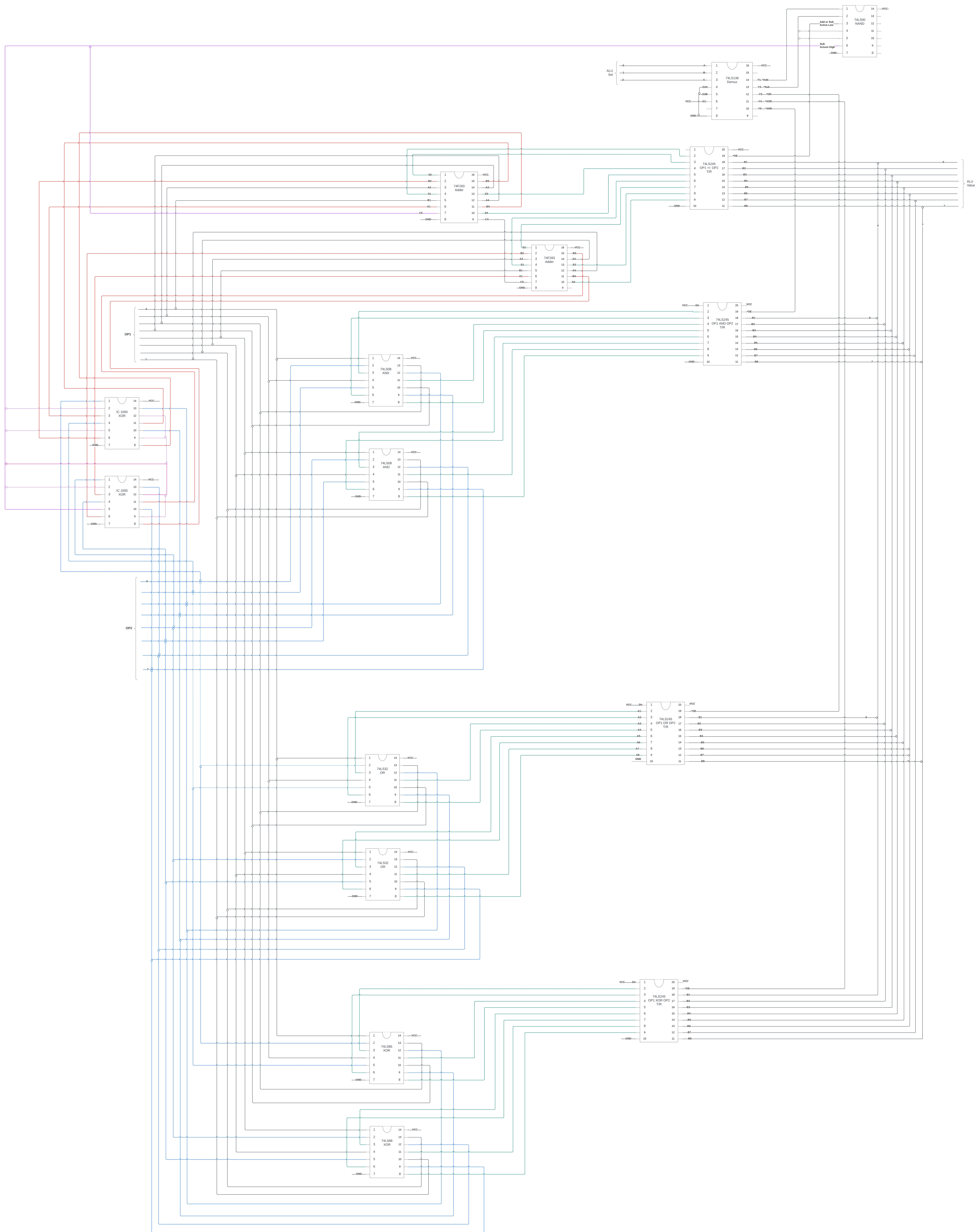


## Hazard Logic



Execute



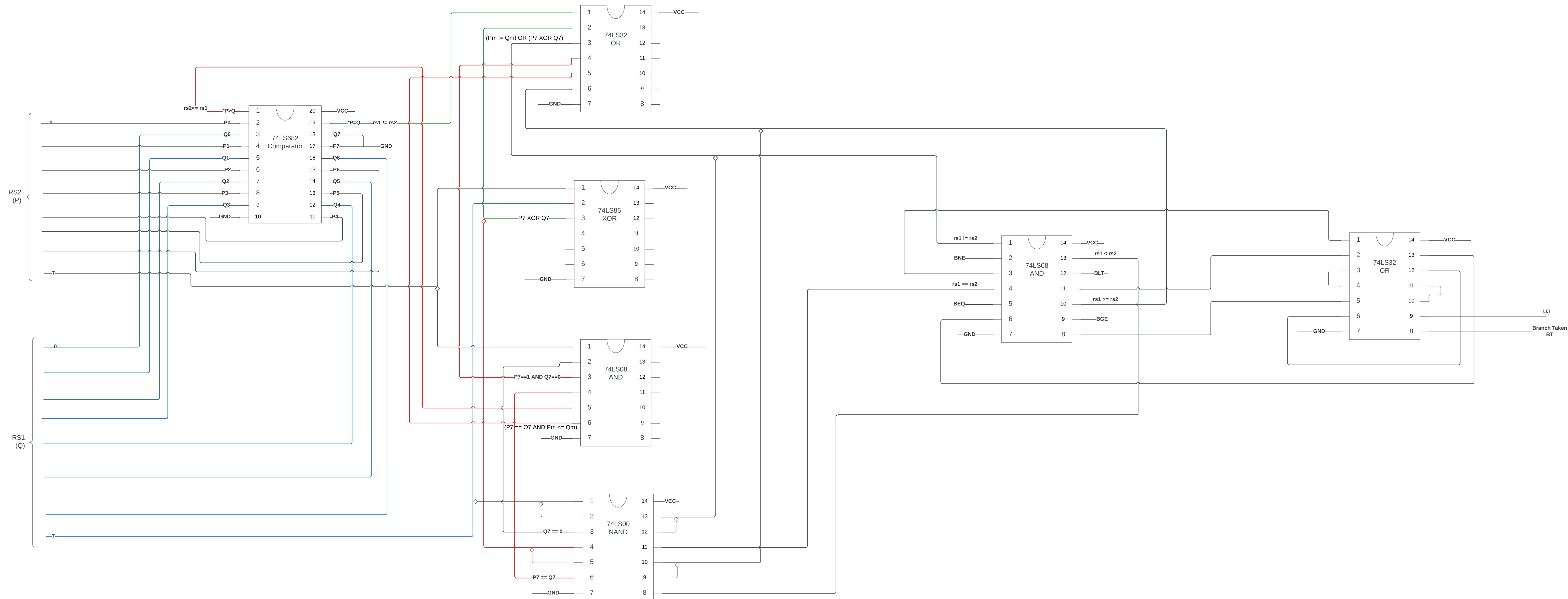


# Branch Comparator

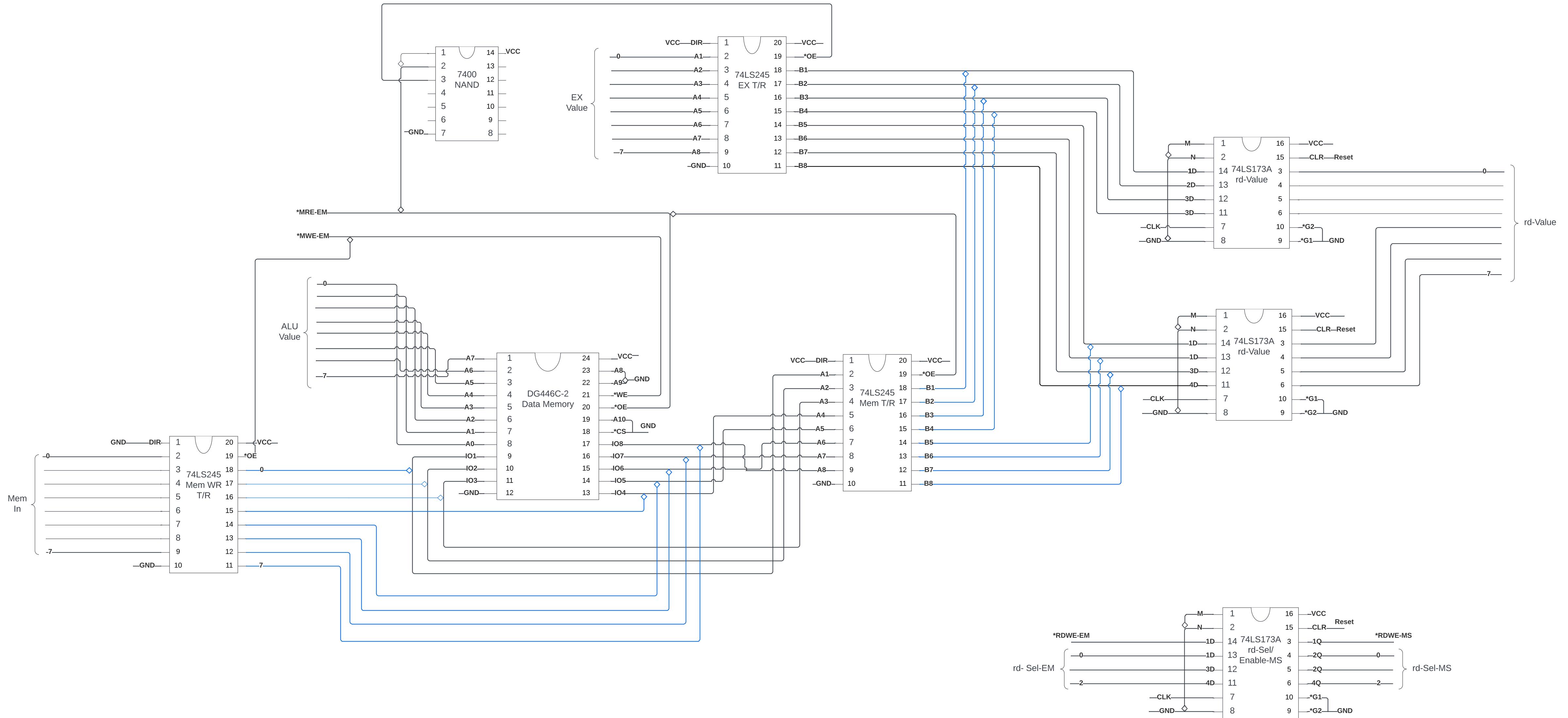
$$P = rs2$$
$$Q = rs1$$

$Pm/Qm$  = Lower 6 bits of P/Q ie  $rs2/rs1$   
 $P7/Q7$  = 7th bit of P/Q ie  $rs2/rs1$

$P \neq Q$	$(P_m \neq Q_m) \text{ OR } (P_7 \neq Q_7)$
$P \leq Q$	$(P_7 == 1 \text{ AND } Q_7 == 0)$ OR $(P_7 == Q_7 \text{ AND } P_m \leq Q_m)$
$P == Q$	$\text{NOT } P \neq Q$
$P > Q$	$\text{NOT } P \leq Q$



## Memory Access



## EEPROM Programmer

