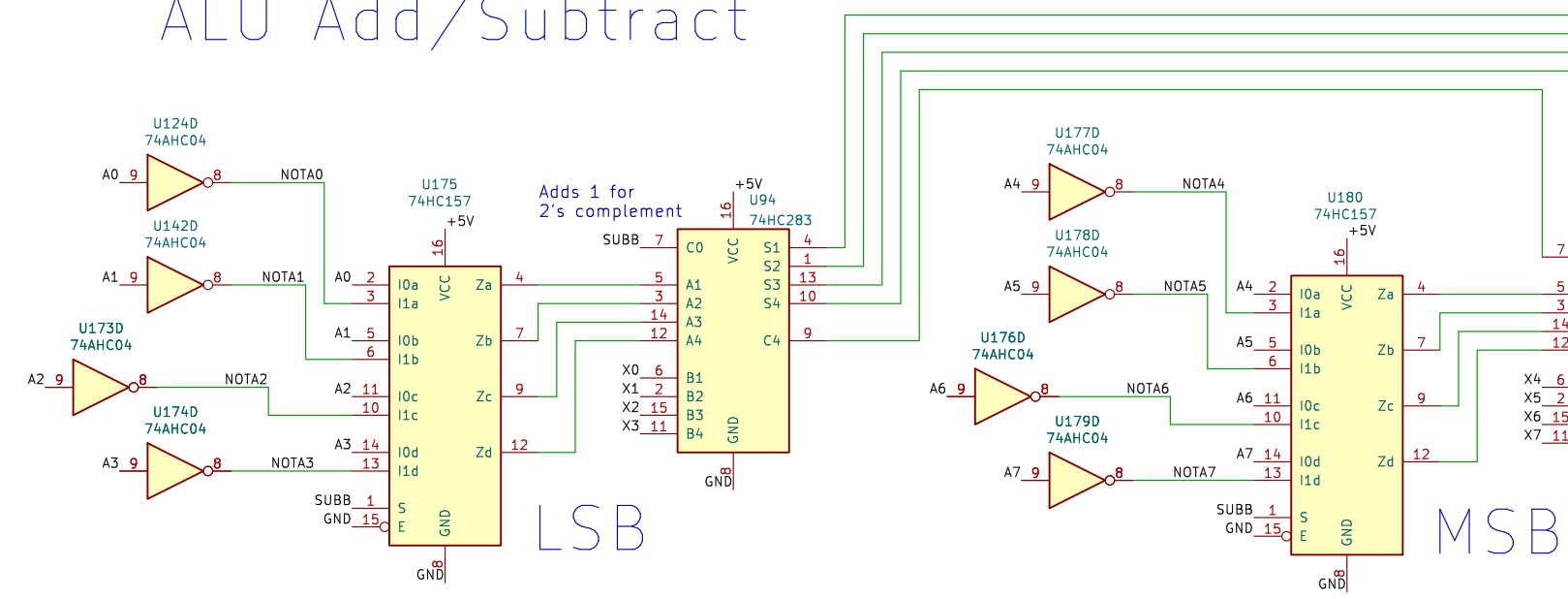
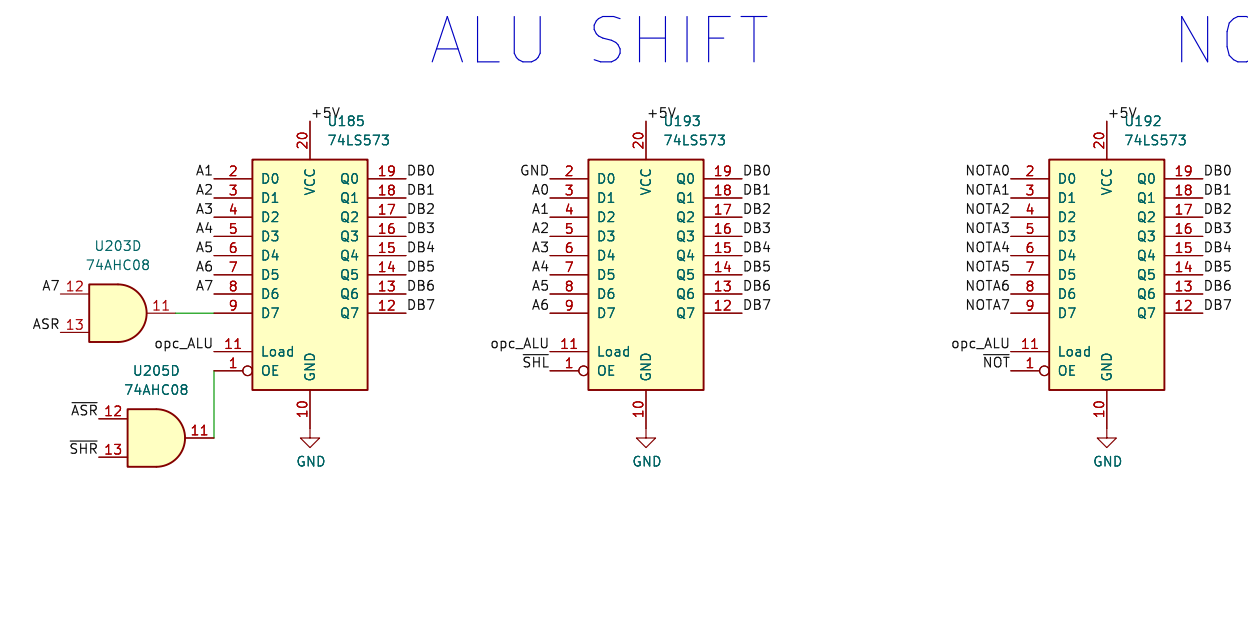


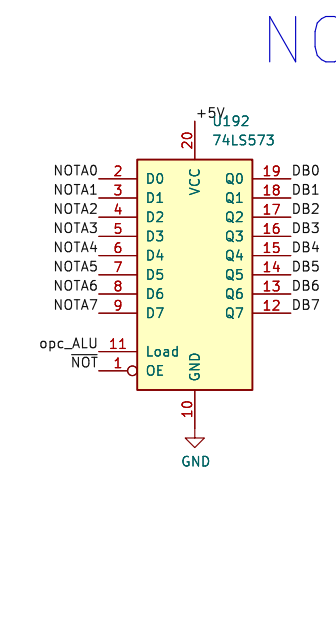
ALU Add/Subtract



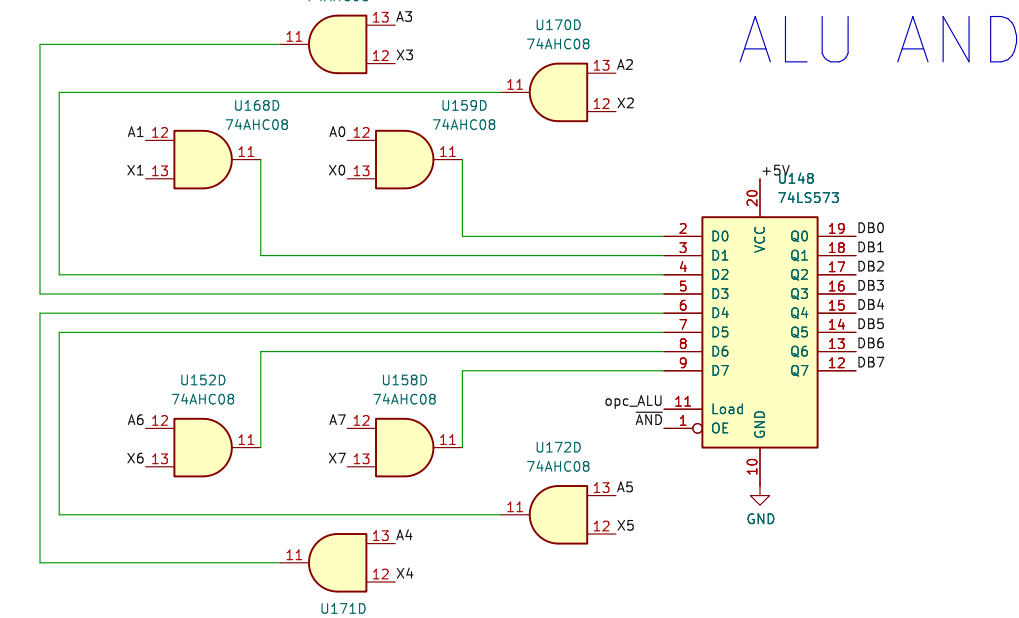
ALU SHIFT



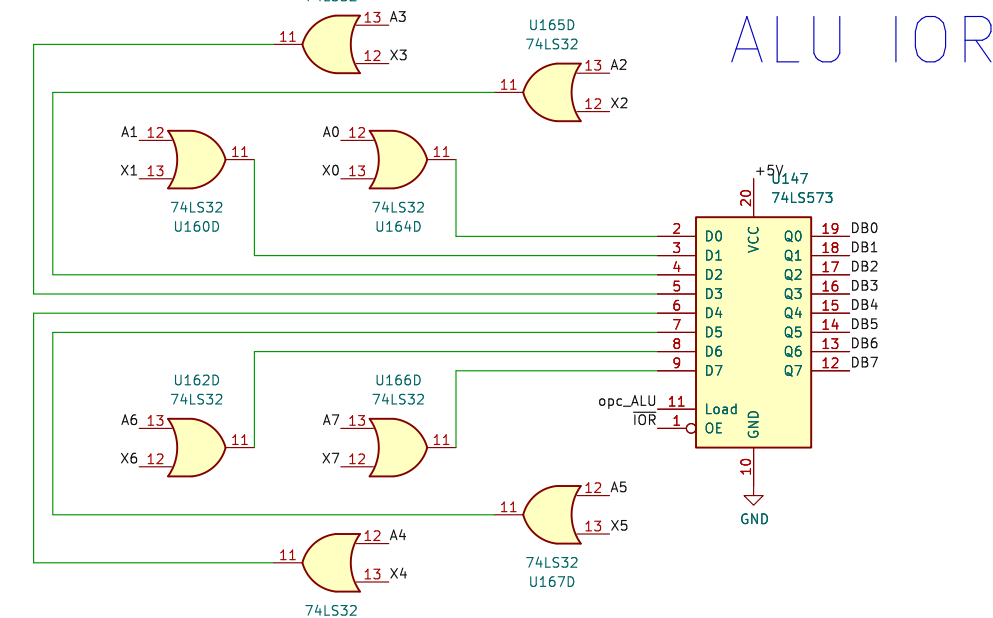
NOT



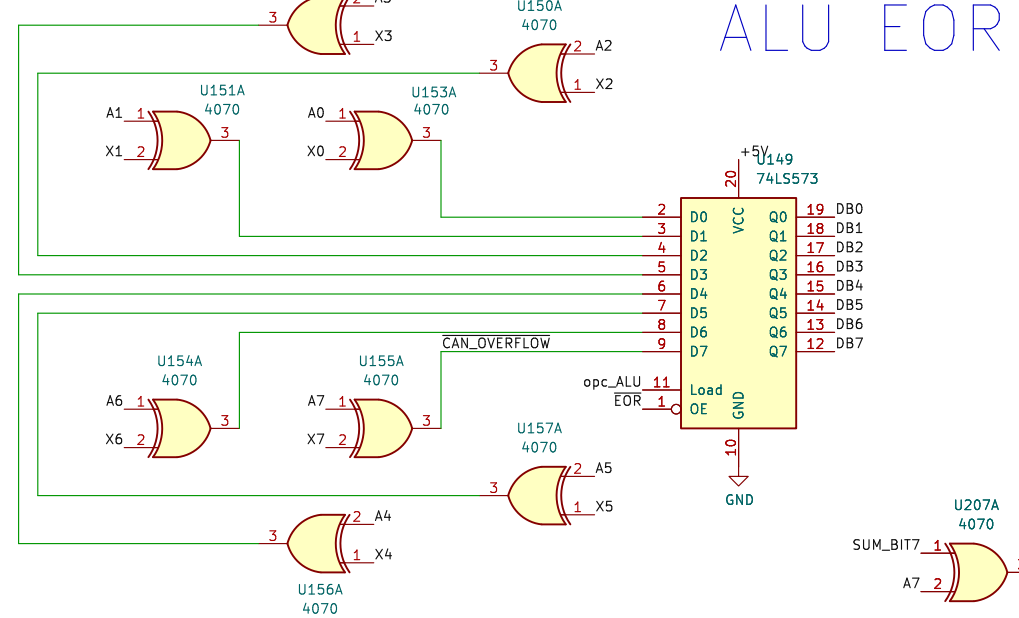
ALU AND



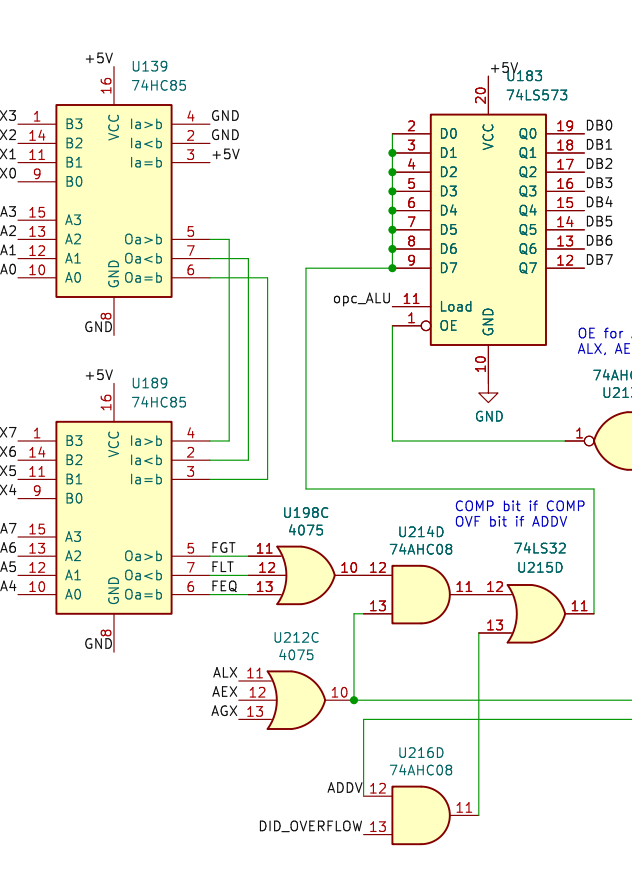
ALU IOR



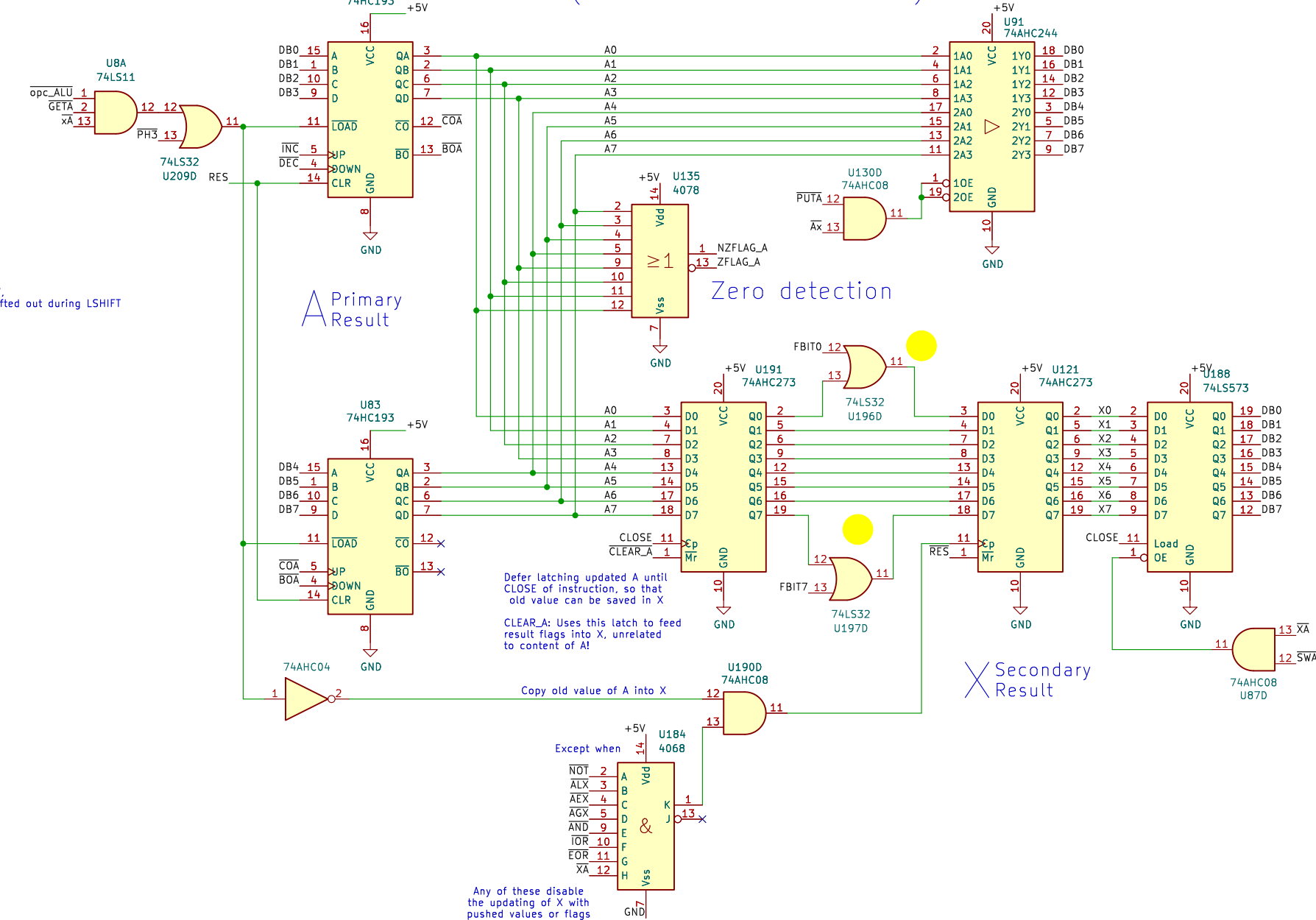
ALU EOR



ALU COMPARATOR



AX (Accumulator)

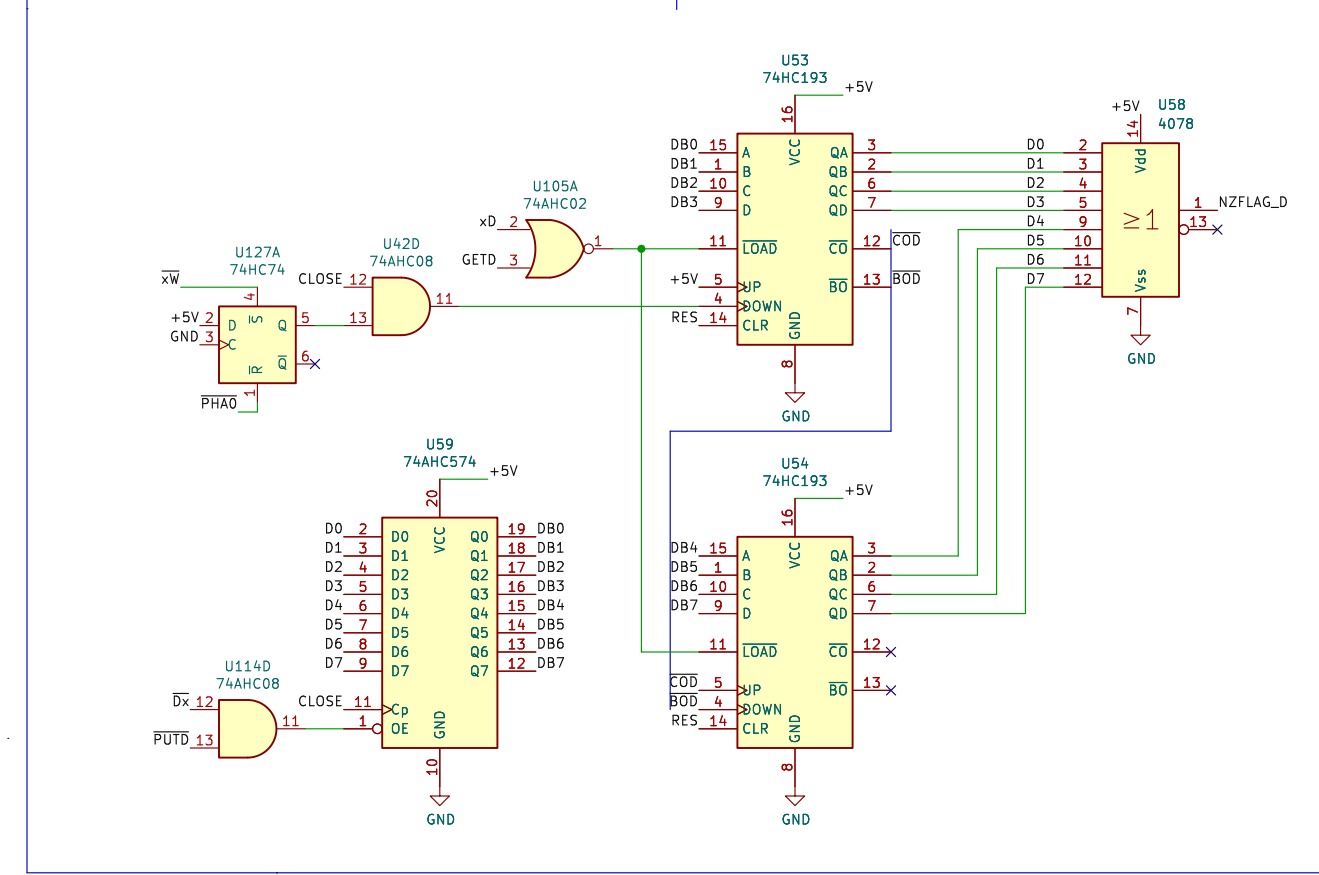


Sonne-8 Microcontroller Reference Schematics Rev. Myth

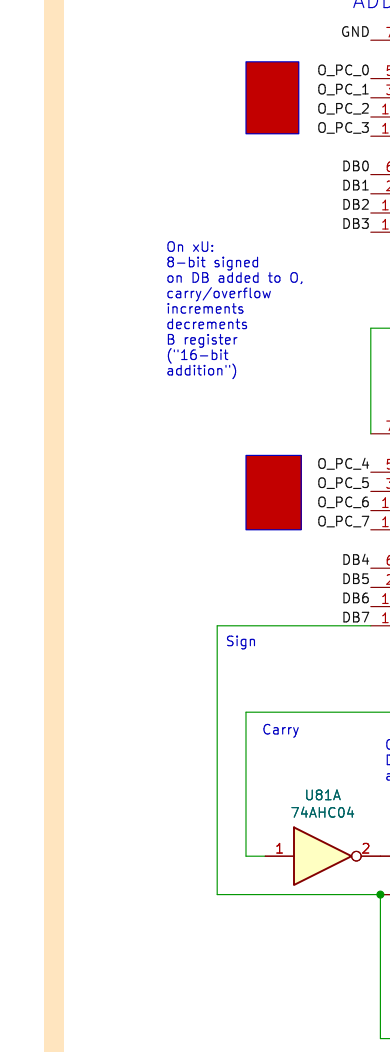
ALU Instructions

- 0: NOT: Set A to NOT B (implementation of A, B unchanged)
- 1: ADD: Flag (ADD) in A (ADD if true, 0 if false), X unchanged
- 2: AND: Flag (AND) in A (AND if true, 0 if false), X unchanged
- 3: OR: Flag (OR) in A (OR if true, 0 if false), X unchanged
- 4: XOR: Set A to A XOR B, X unchanged
- 5: LSH: Set A to A LSH B, X unchanged
- 6: RSH: Set A to A RSH B, X unchanged
- 7: SET: Set A equal to B, X unchanged
- 8: EQ: Set A equal to B
- 9: NEQ: Set A not equal to B
- 10: SHL: Shift A left, result in A, set X to previous MSB of A as LSH (0 or 1)
- 11: SHR: Shift A right logically, result in A, set X to previous LSH of A as RSH (0 or 1)
- 12: ASR: Shift A right arithmetically, set X to previous LSH of A as RSH (0 or 1)
- 13: ADDC: Add A to B, result in A, CARRY set to X (0 or 1)
- 14: ADDD: Add A to B, result in A, OVERFLOW flag in X (0 or 1, 000, else 0)
- 15: SUBB: Subtract B from A, result in A, SUBBOUT flag in X (0 or 1)

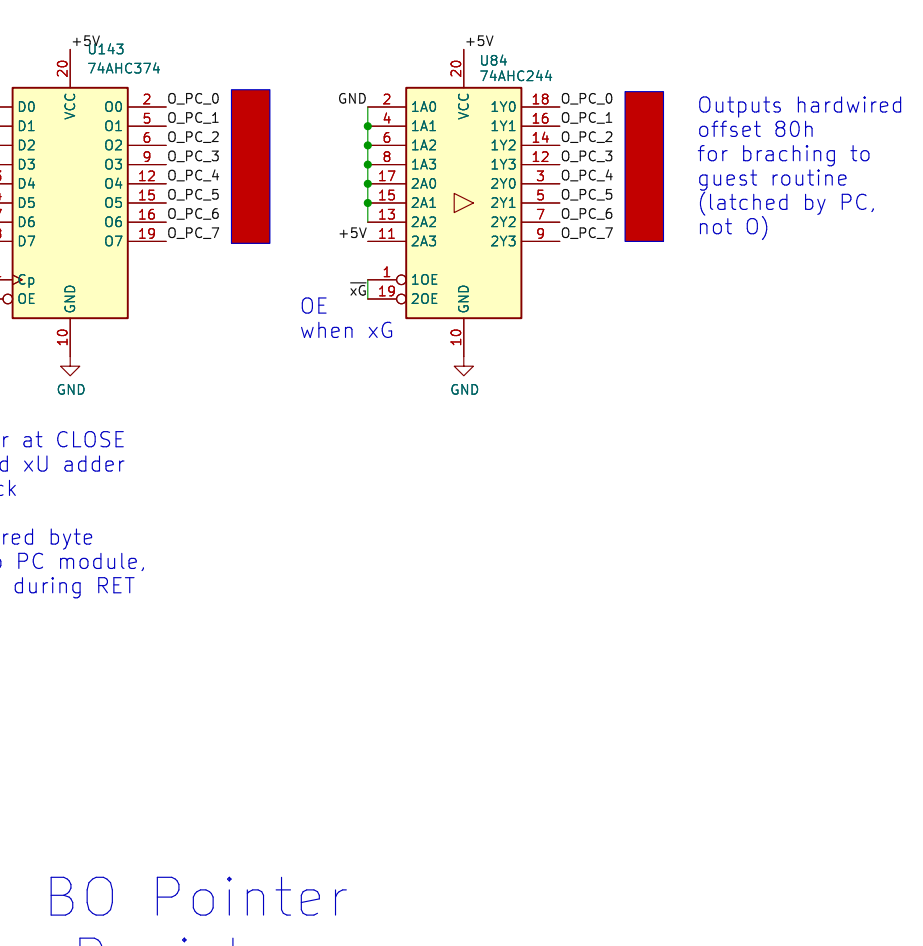
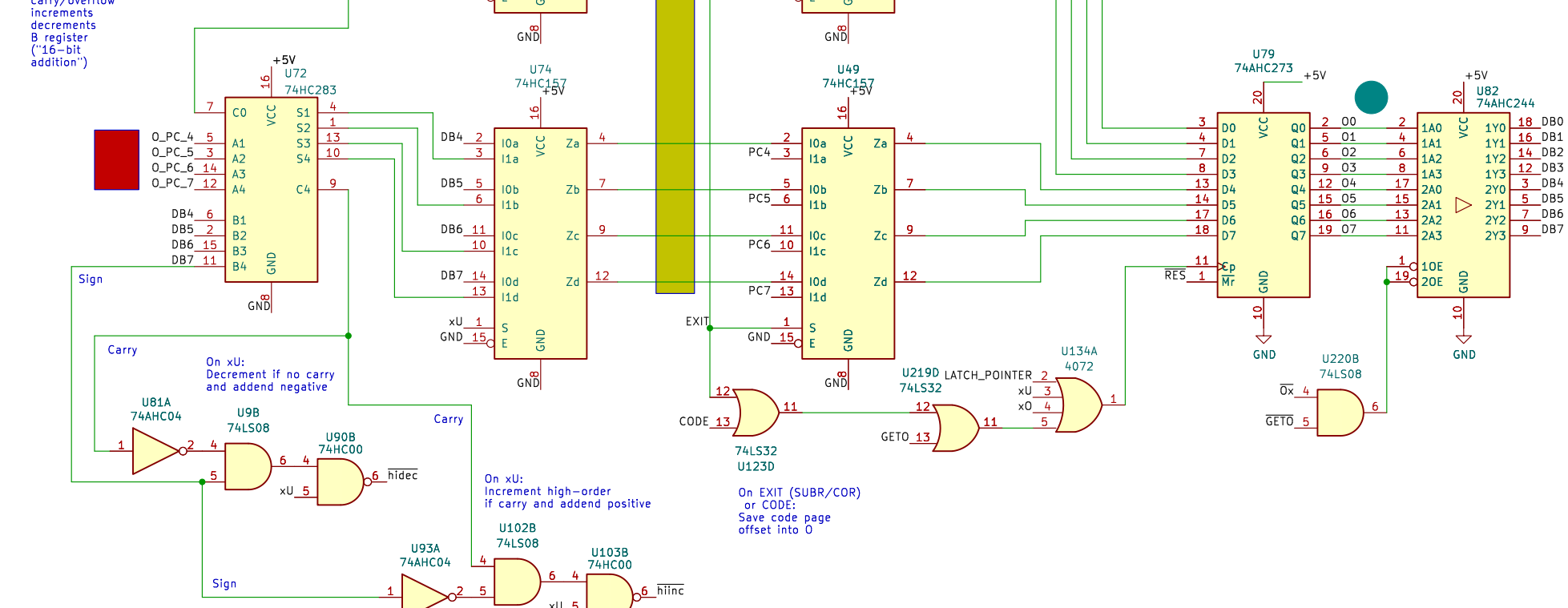
D(OWN COUNTER) Inner-loops



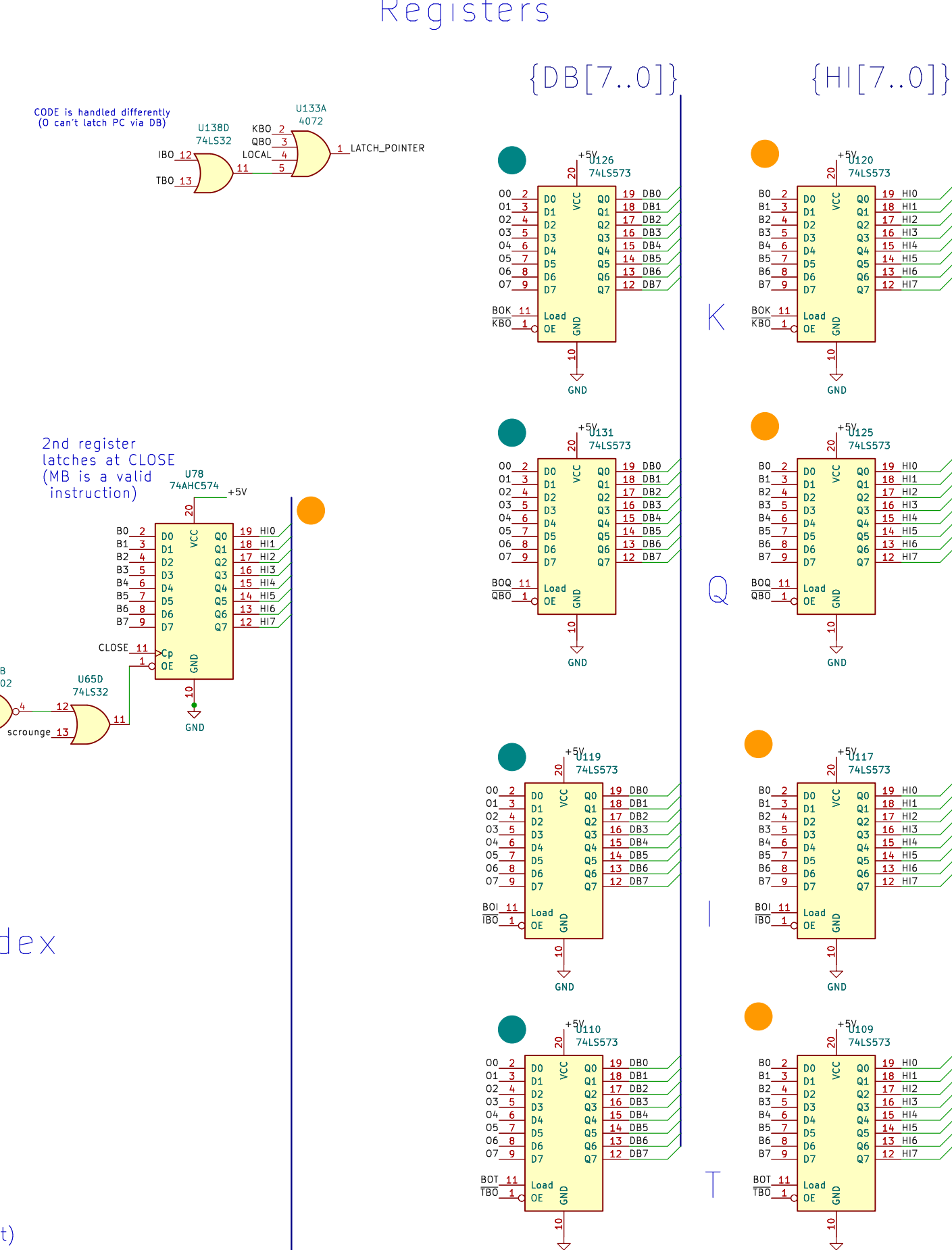
Pointer low



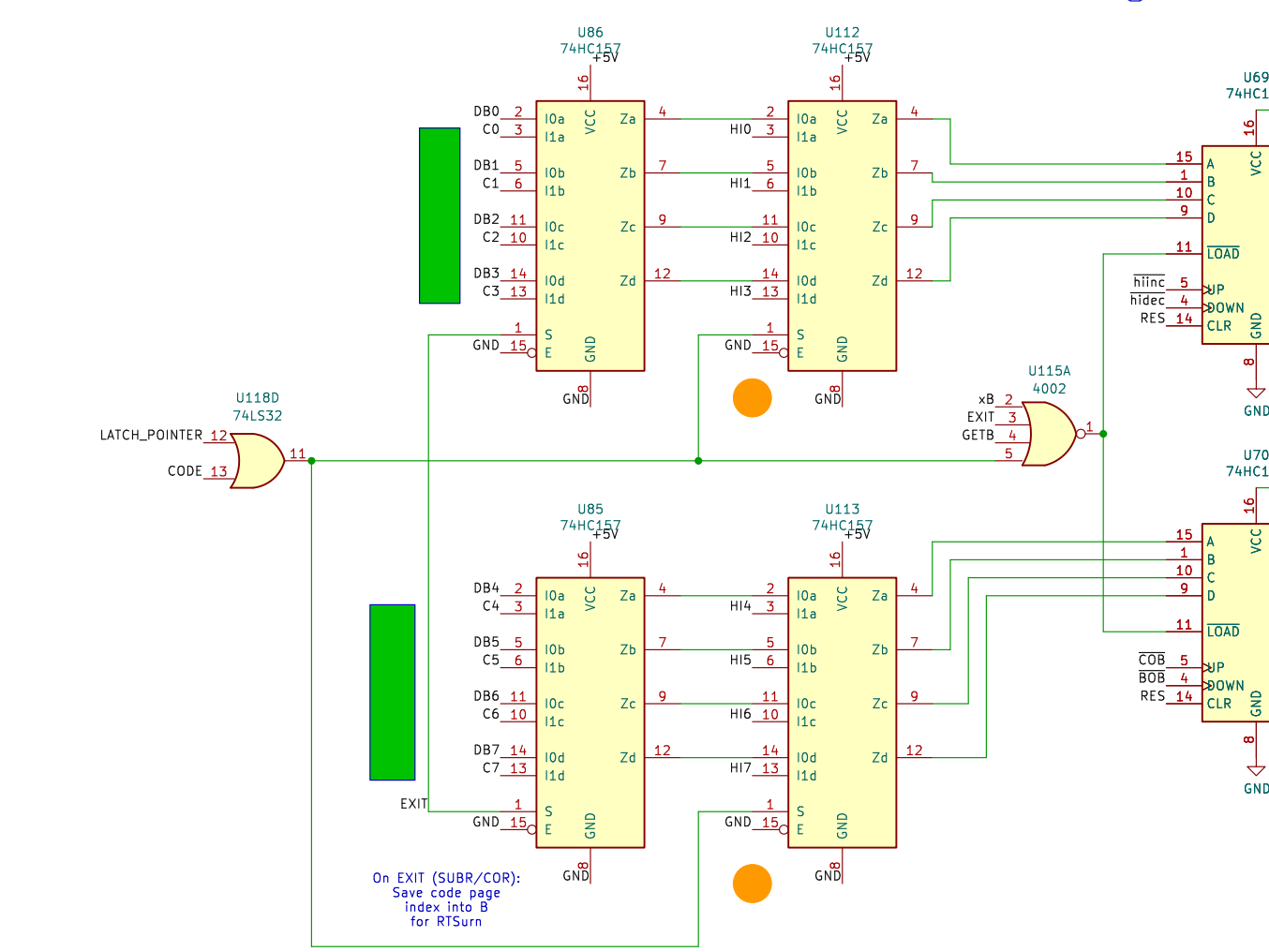
O (Page Offset Register)



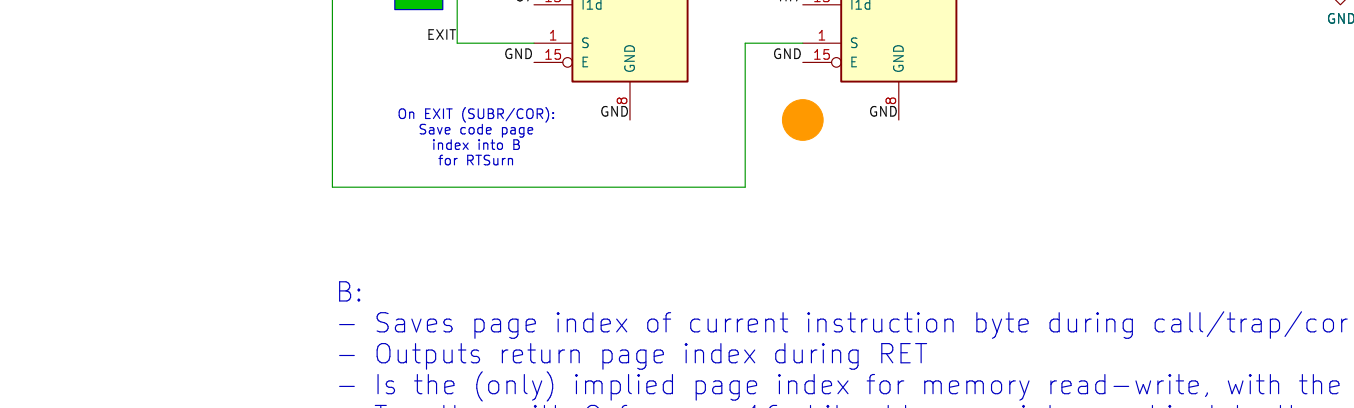
BO Pointer Registers



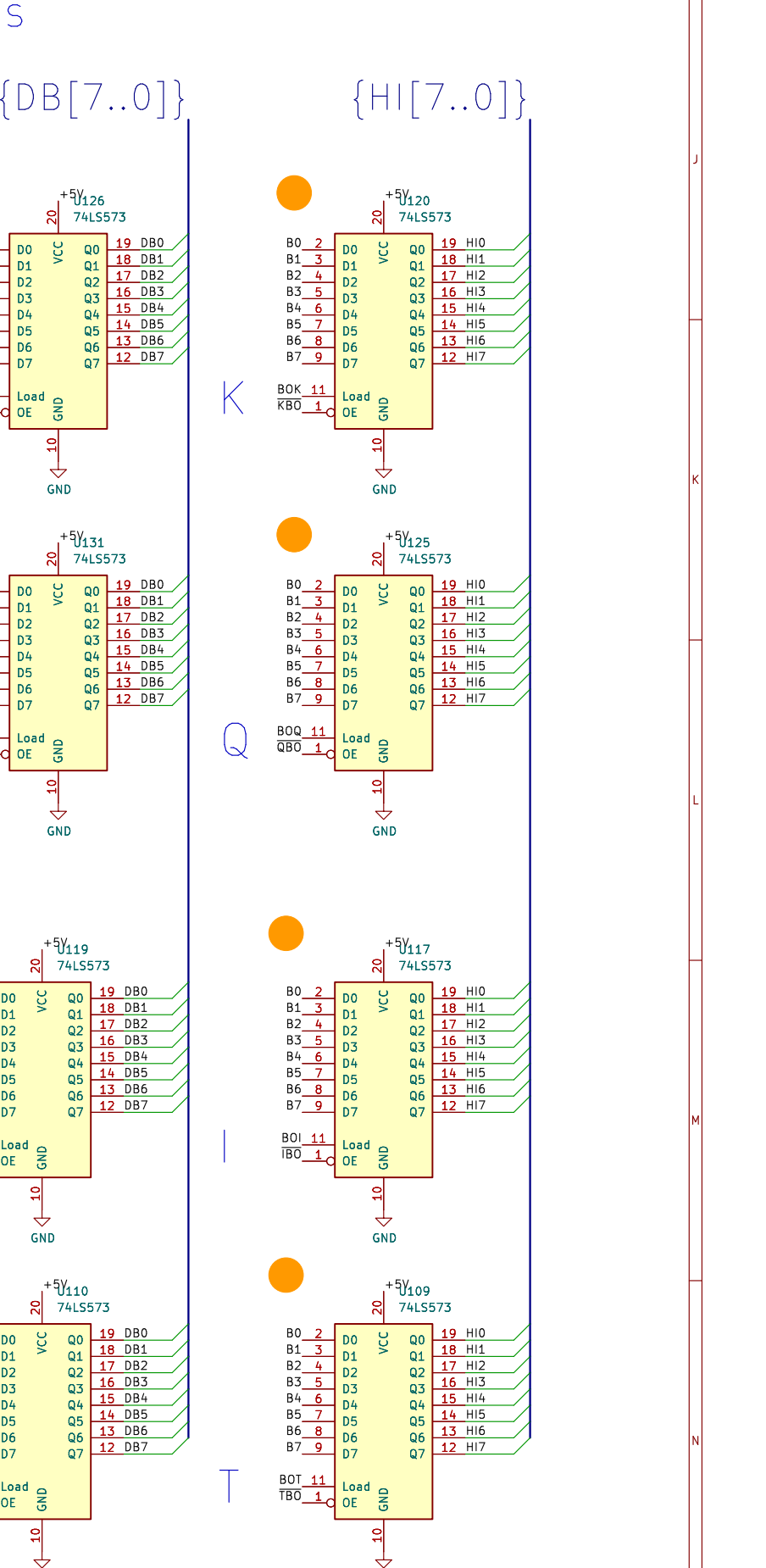
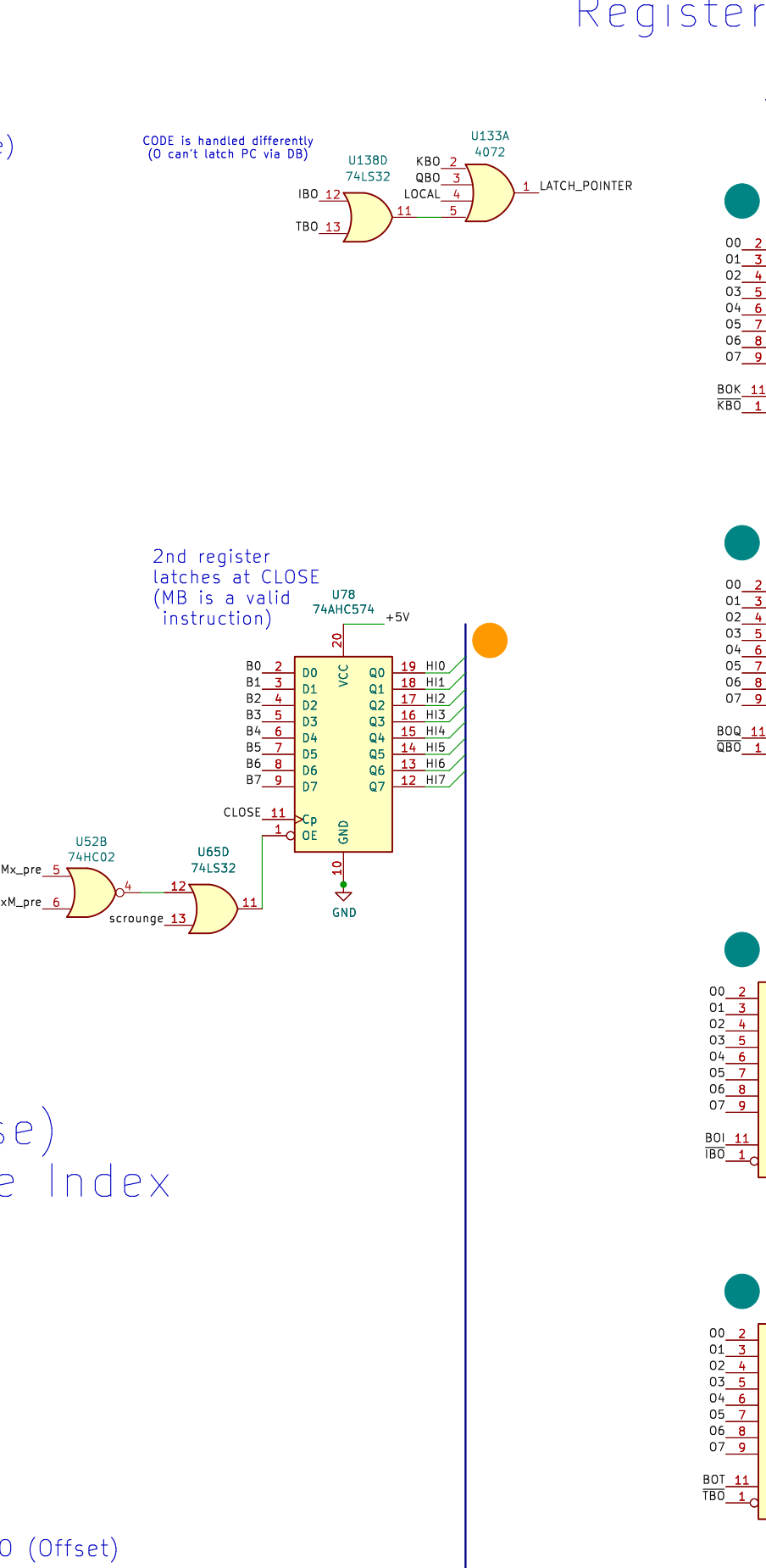
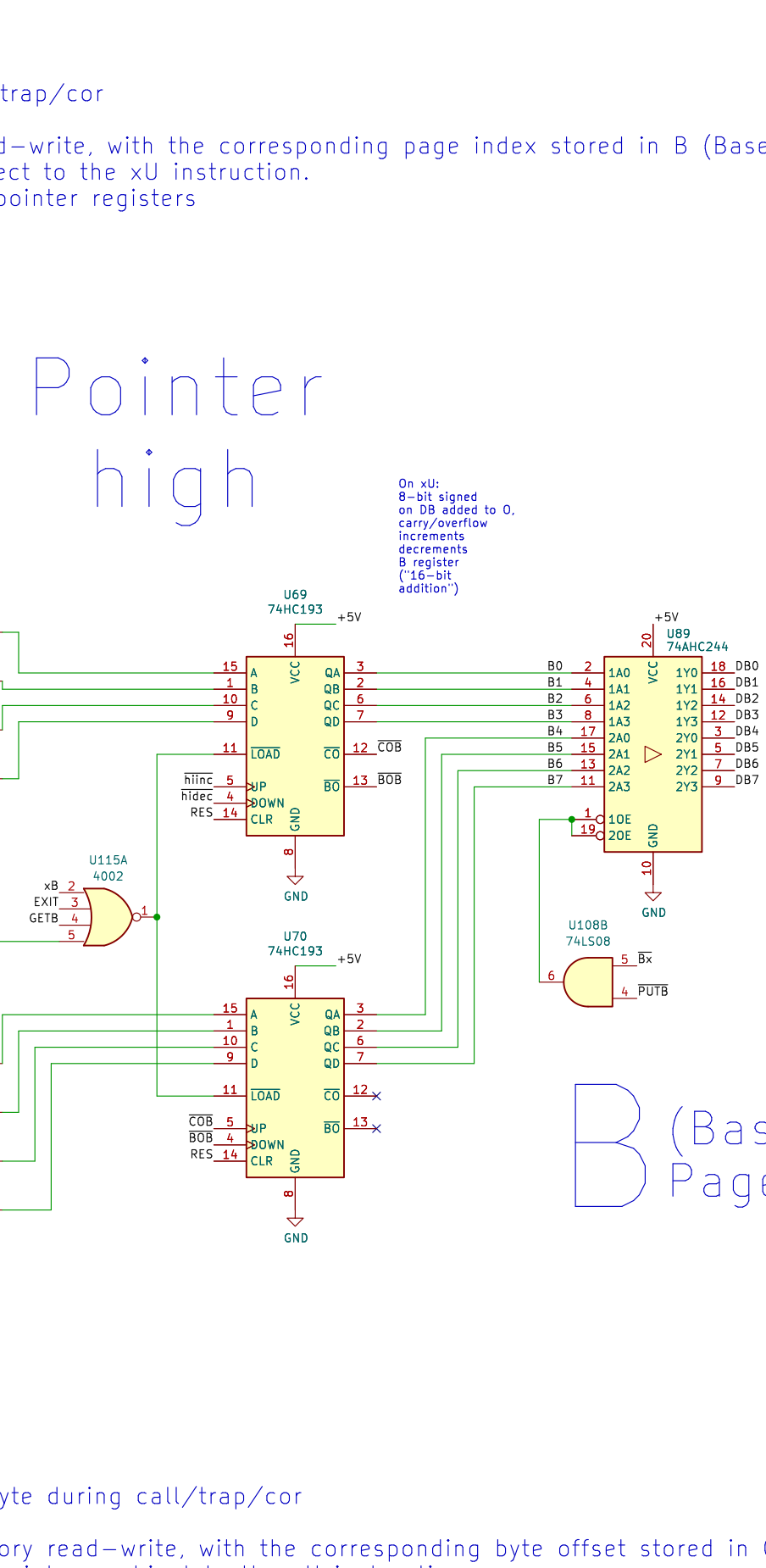
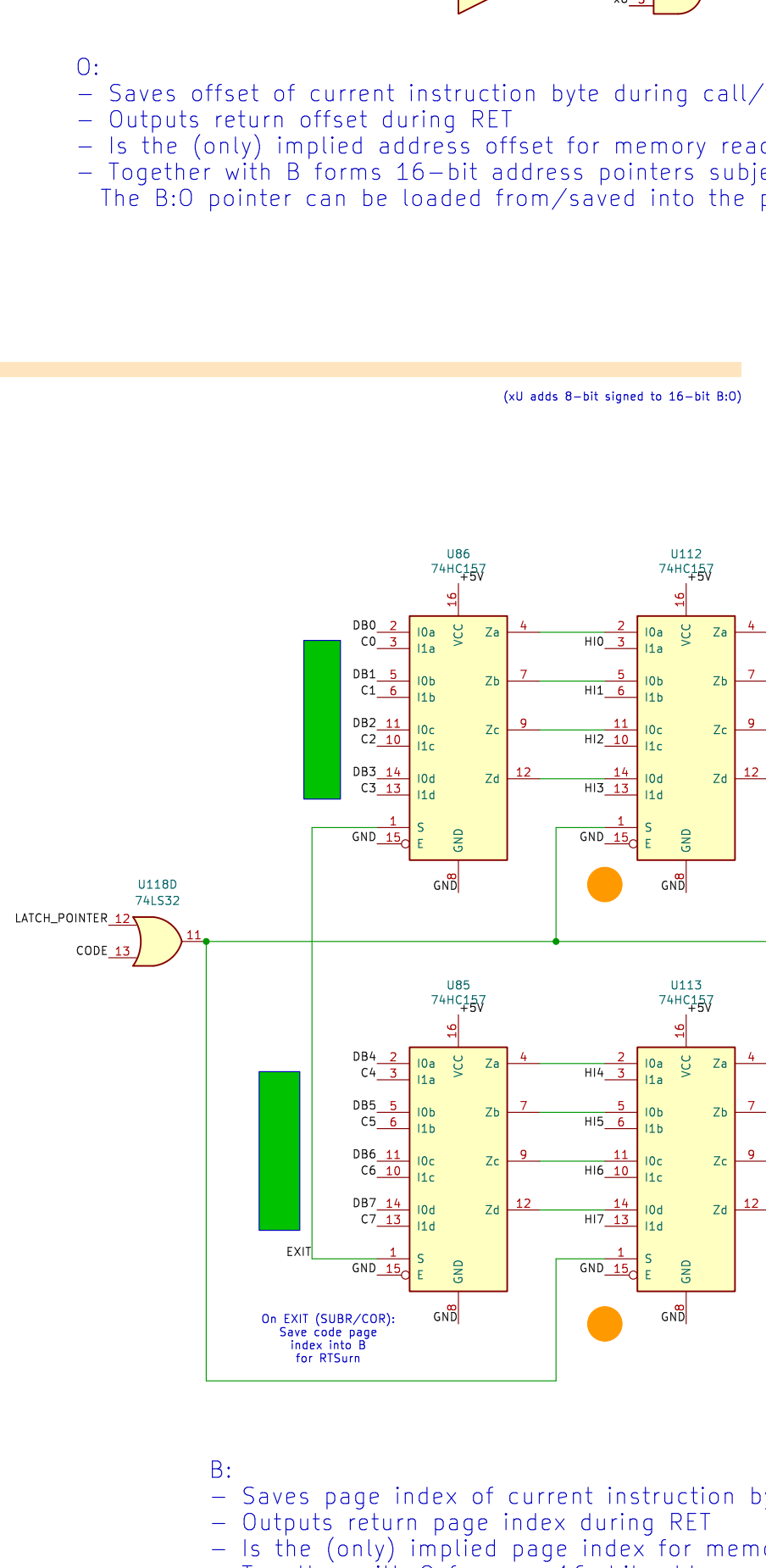
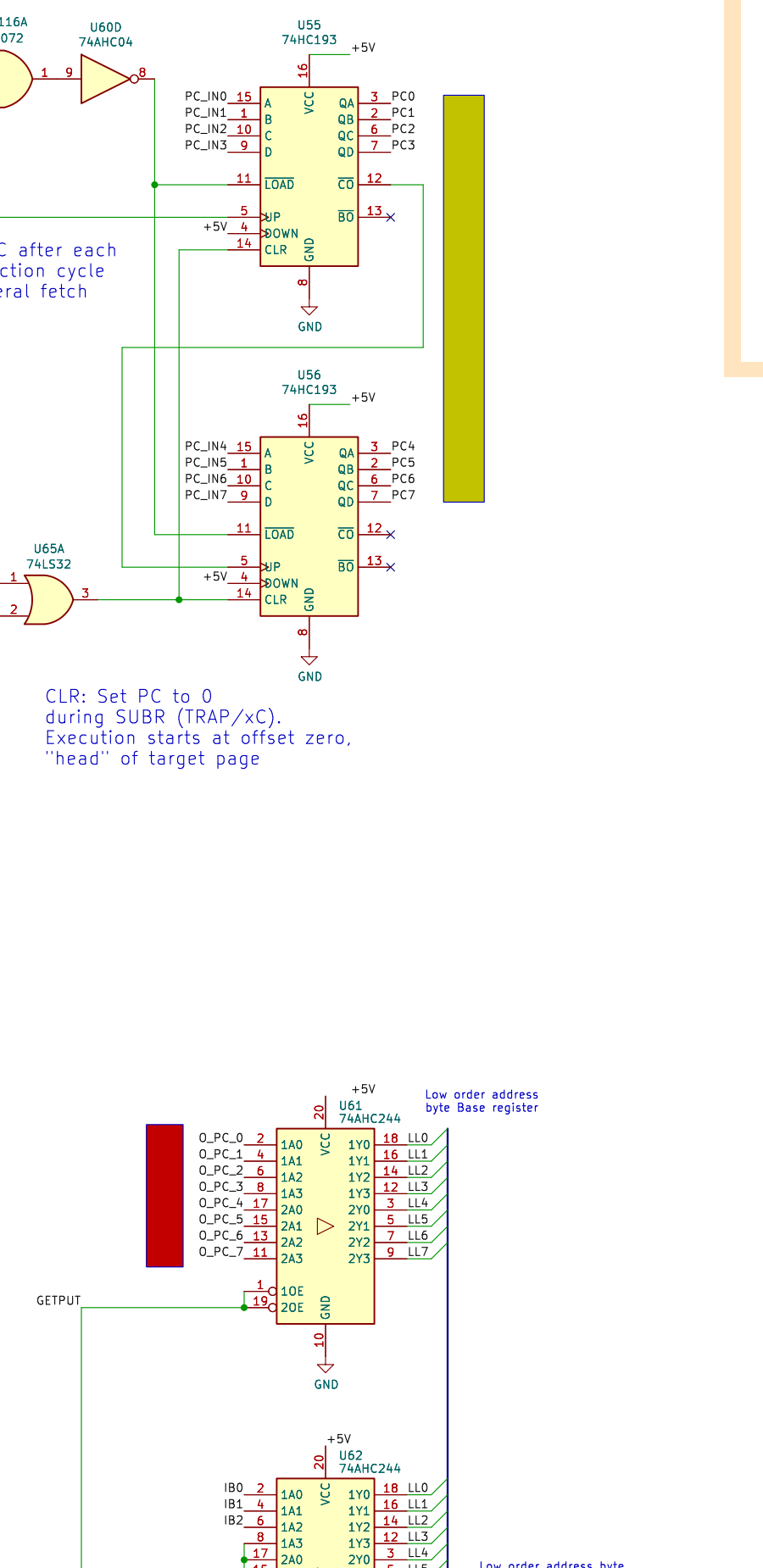
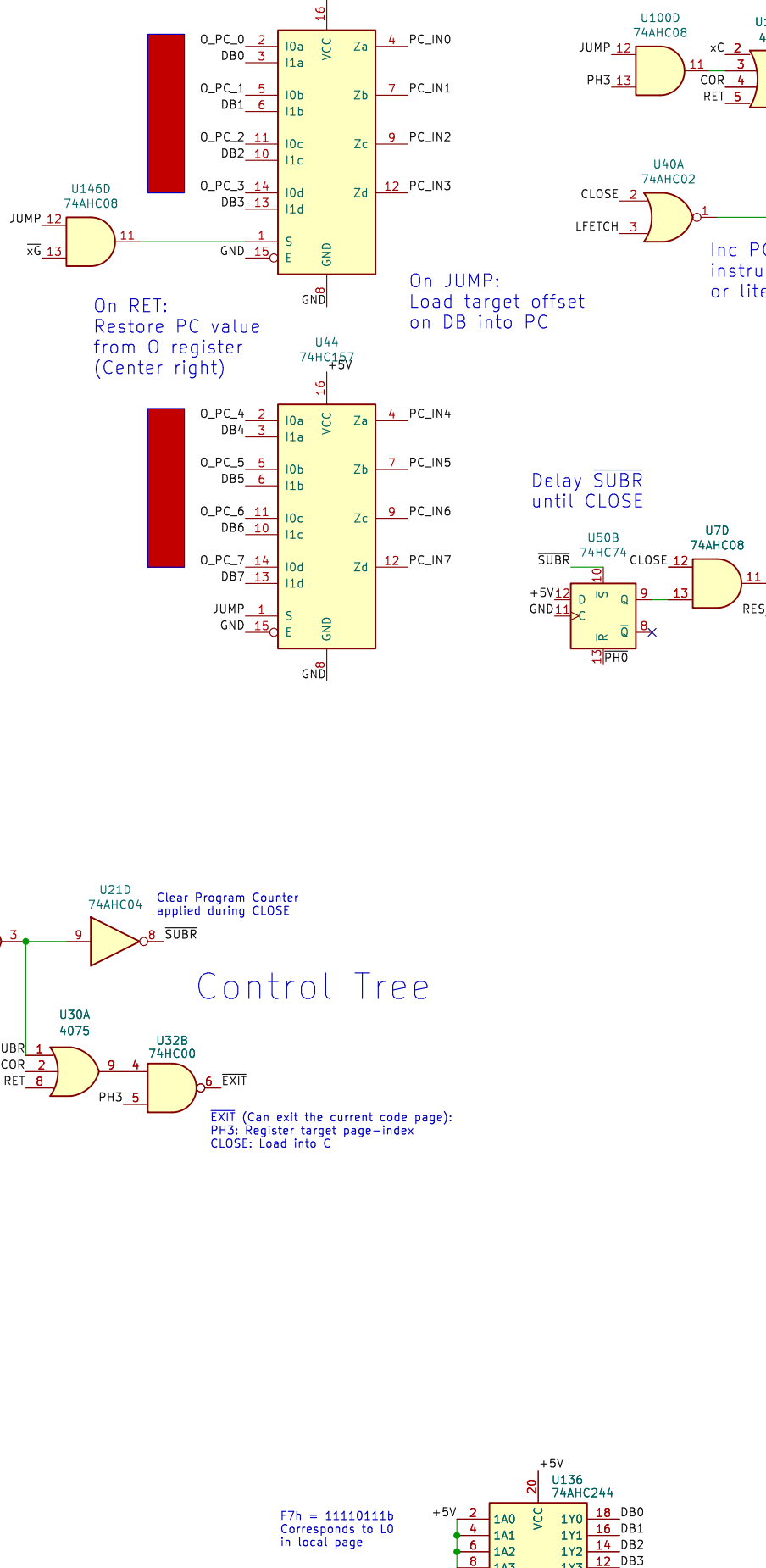
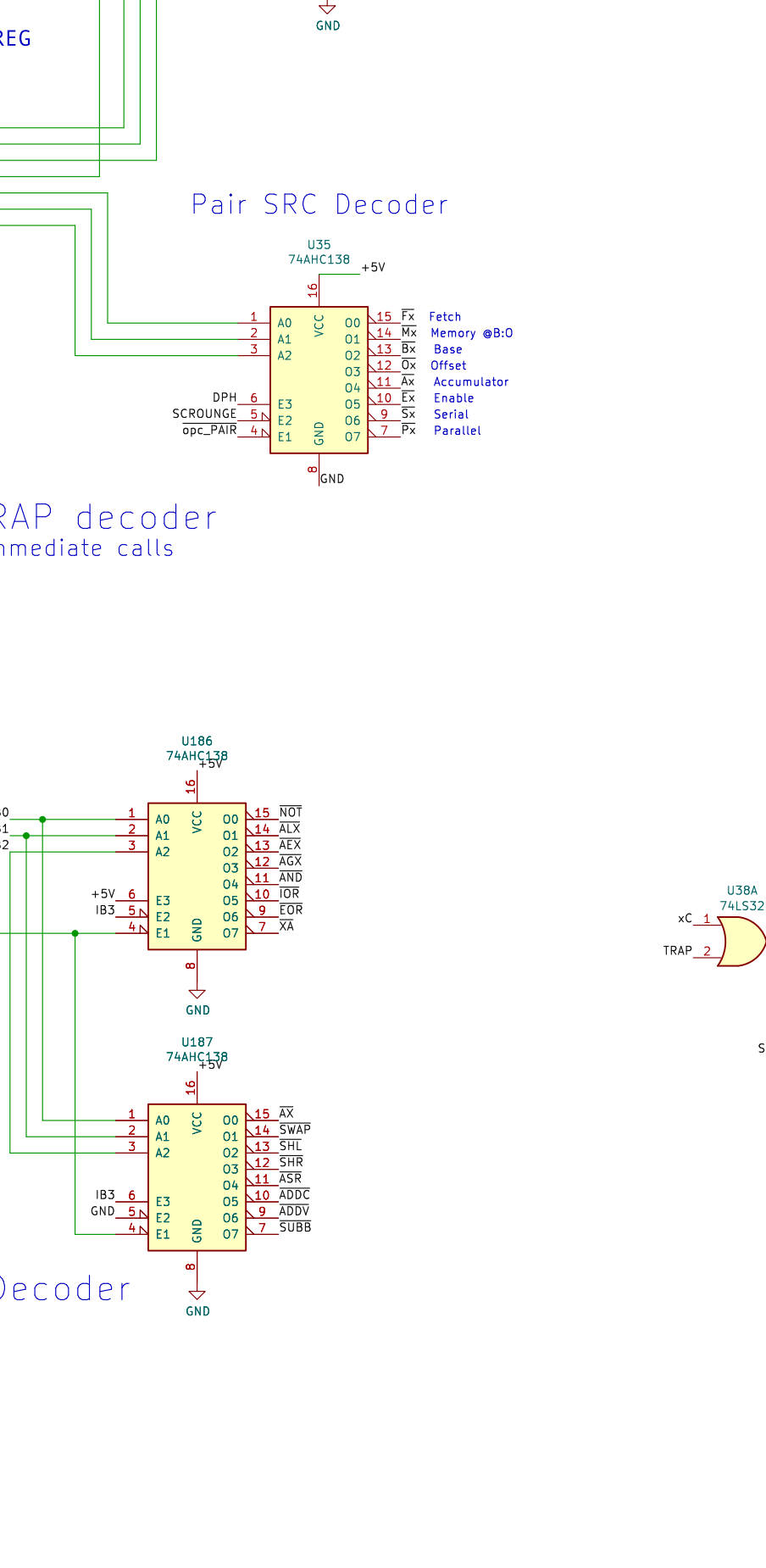
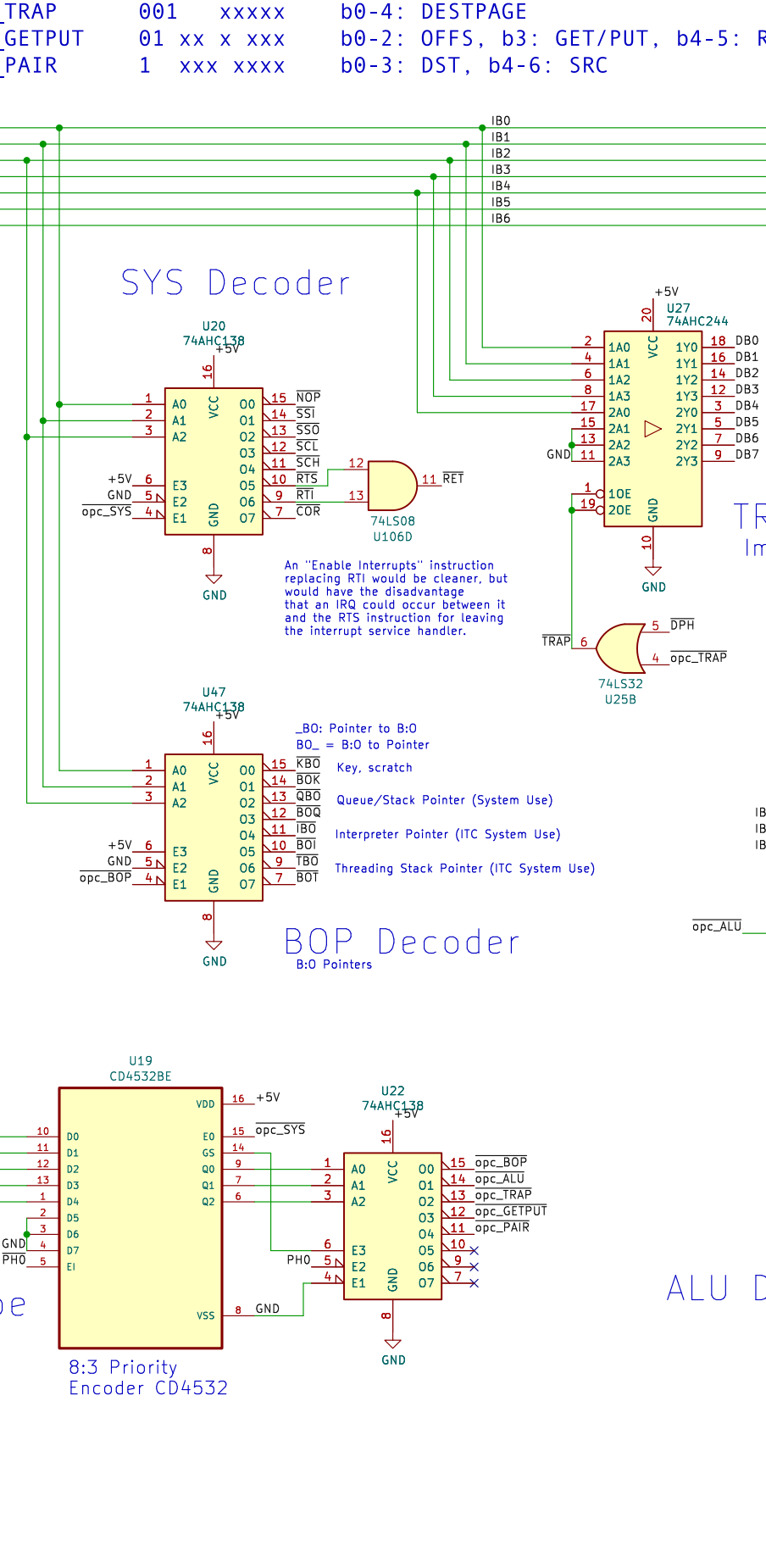
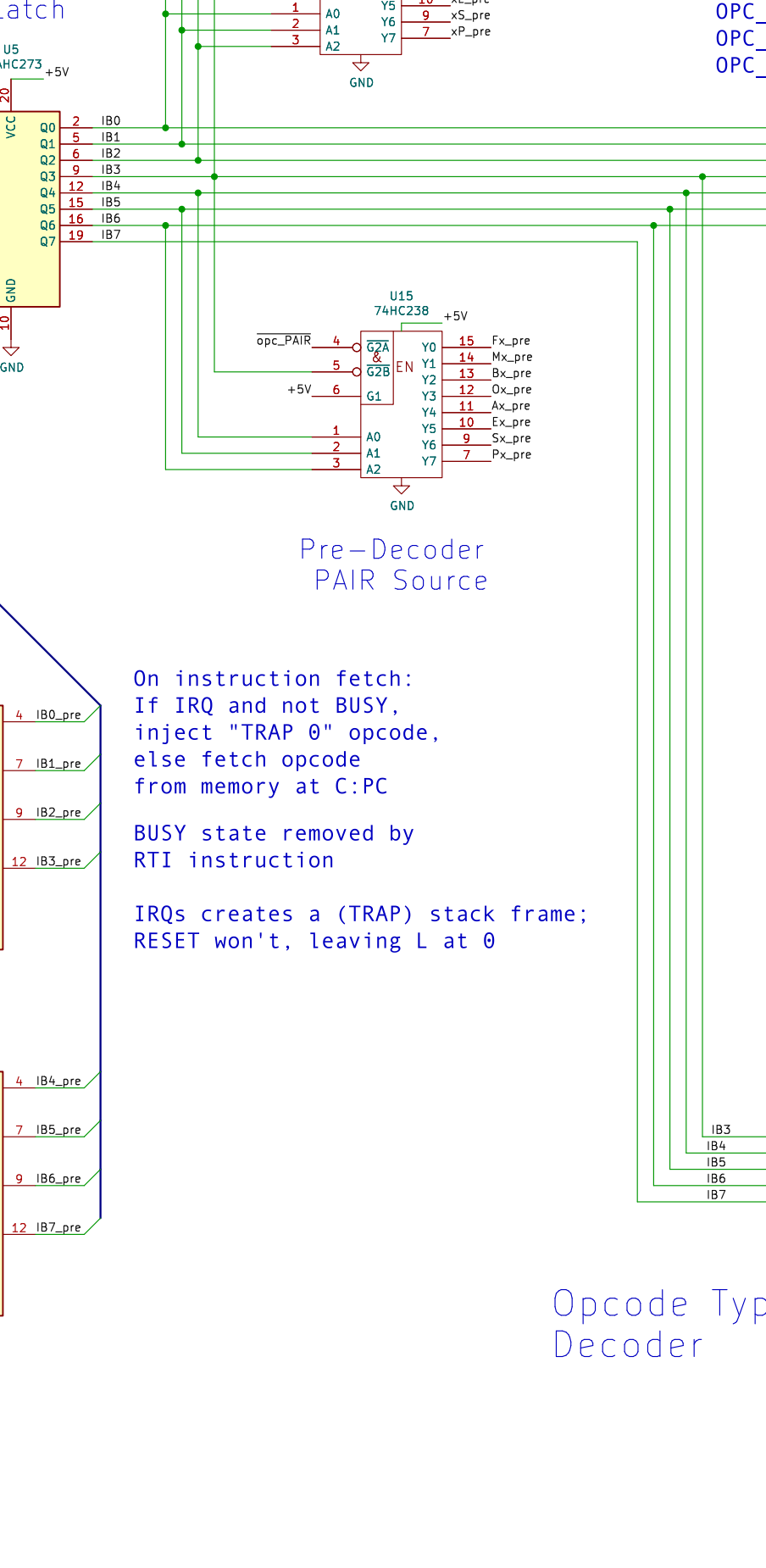
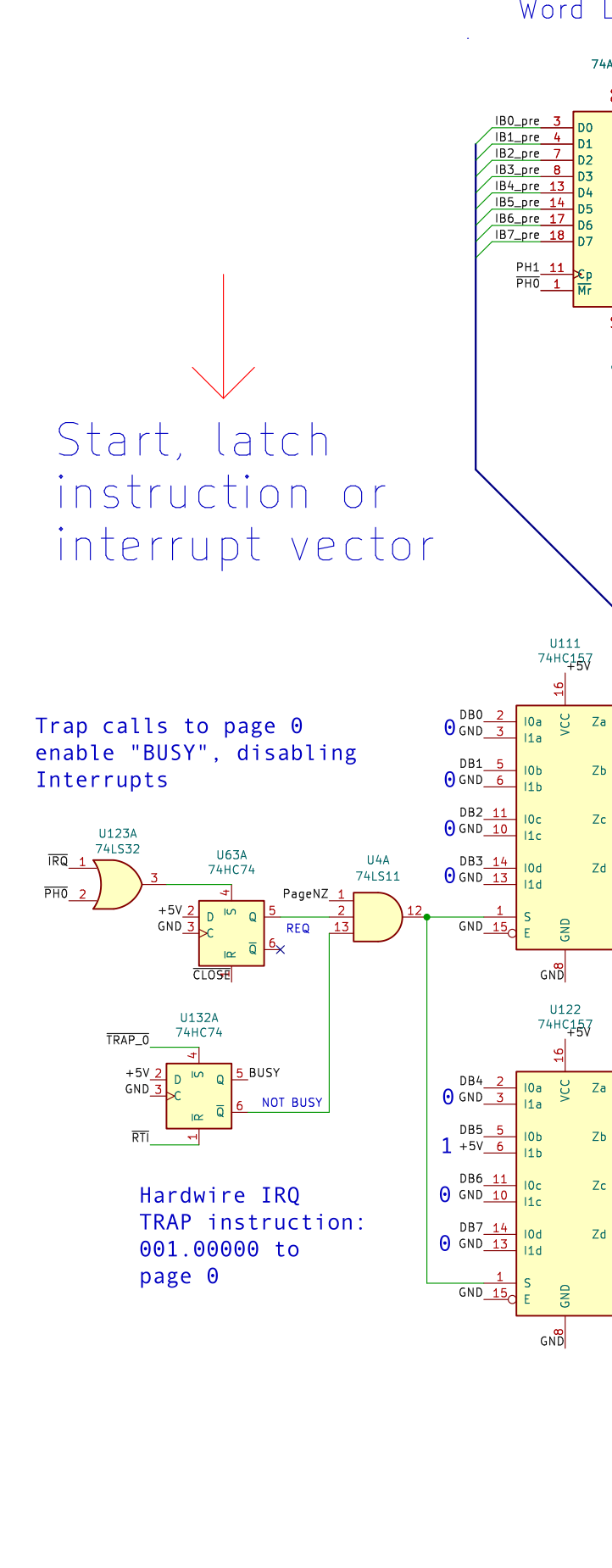
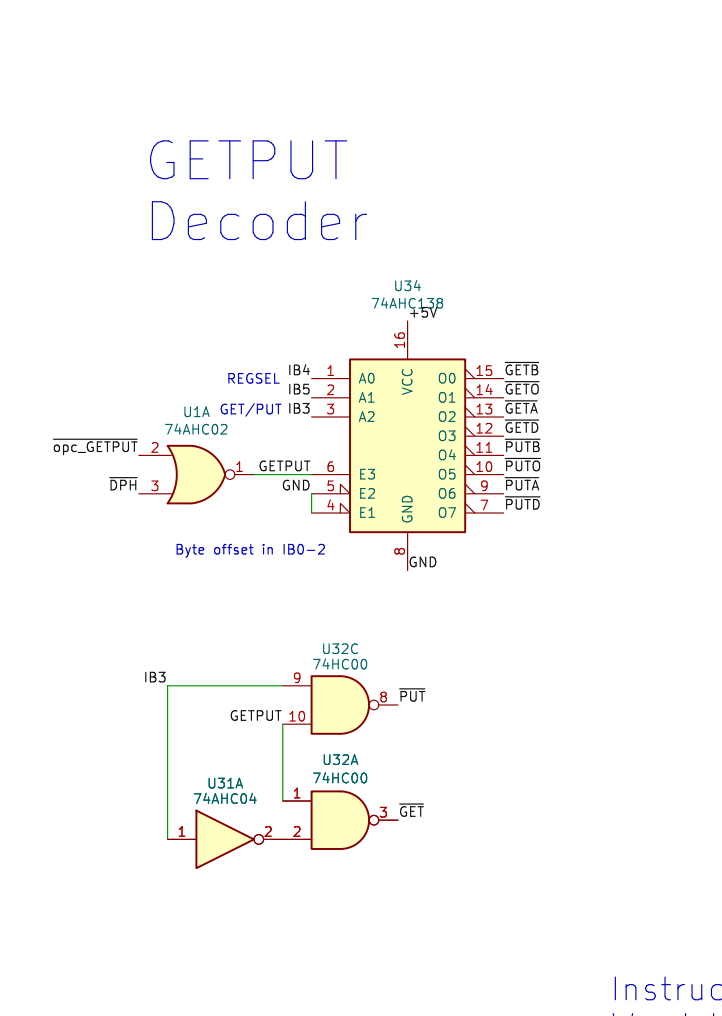
Pointer high



B (Base) Page Index

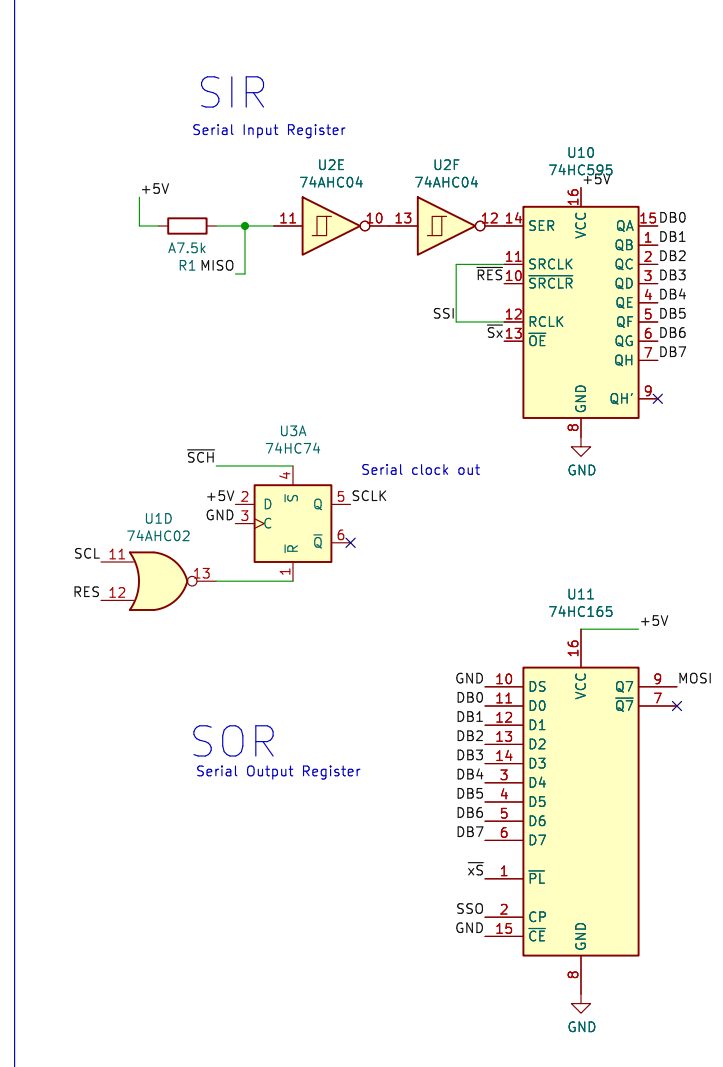


Instruction Decoder

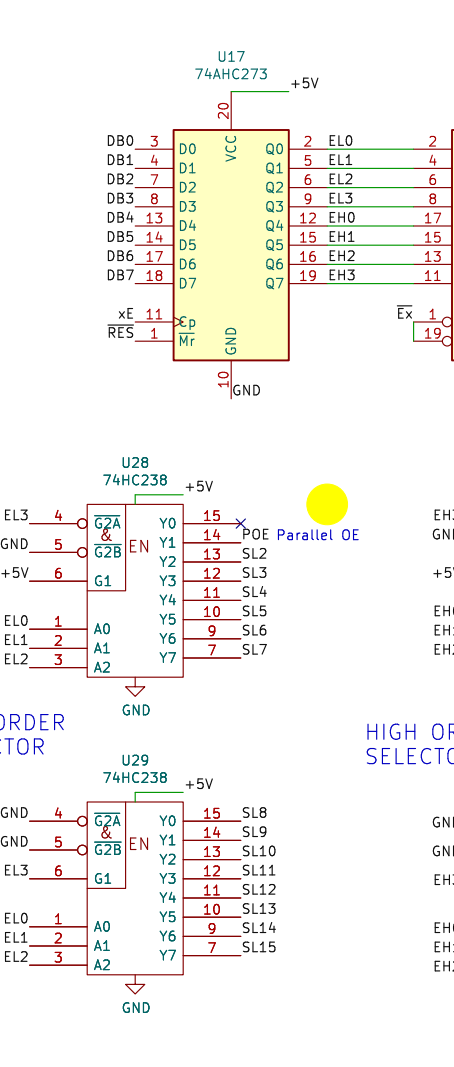


Input/Output

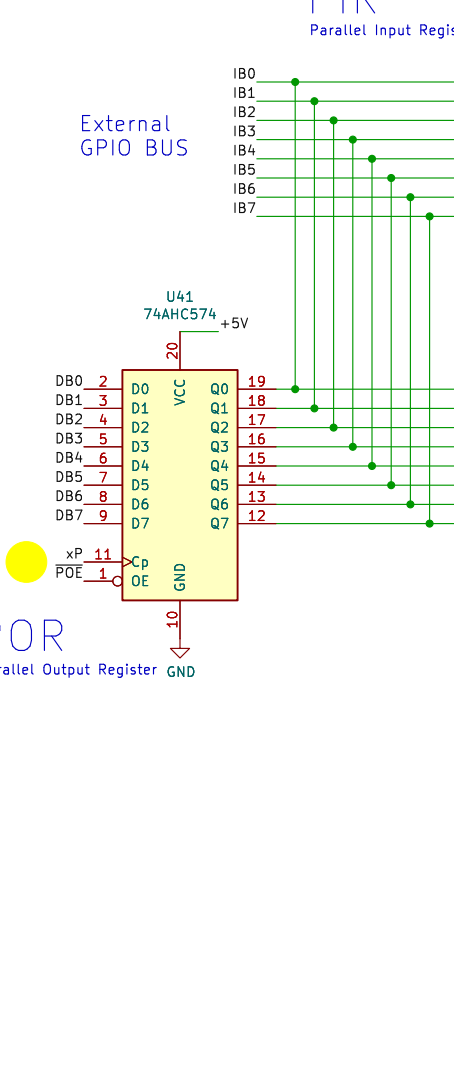
S Serial IO



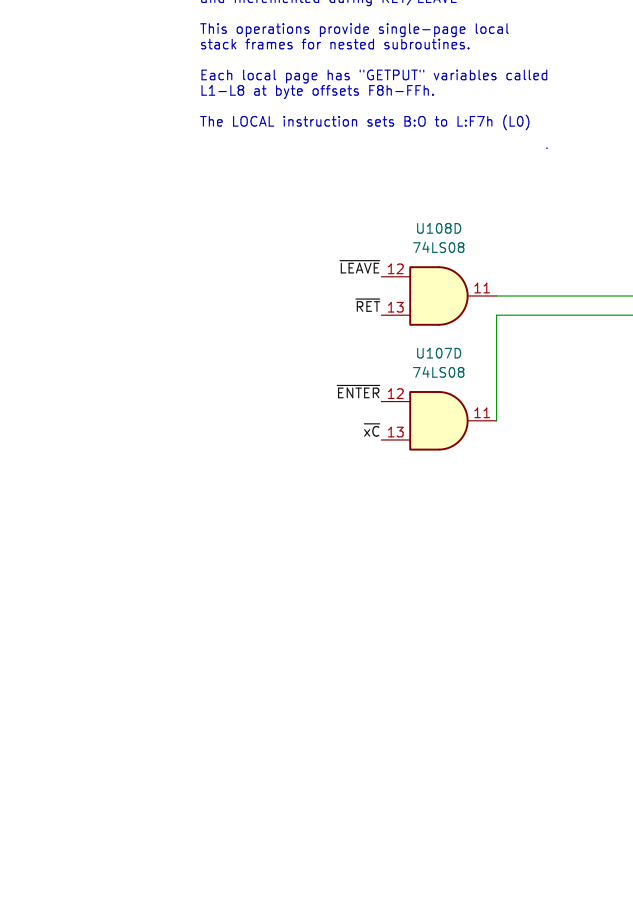
E Device Enable Register



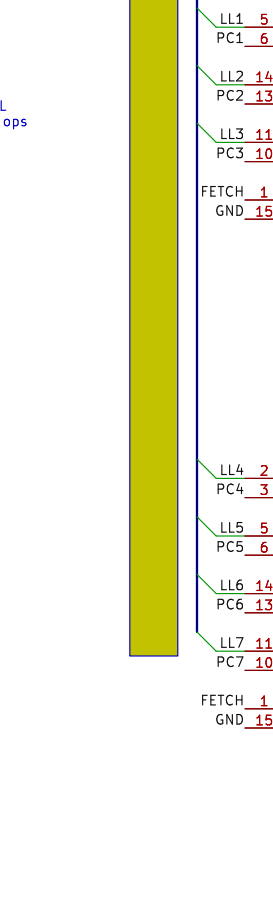
P Parallel IO



(Local Page Index Register)



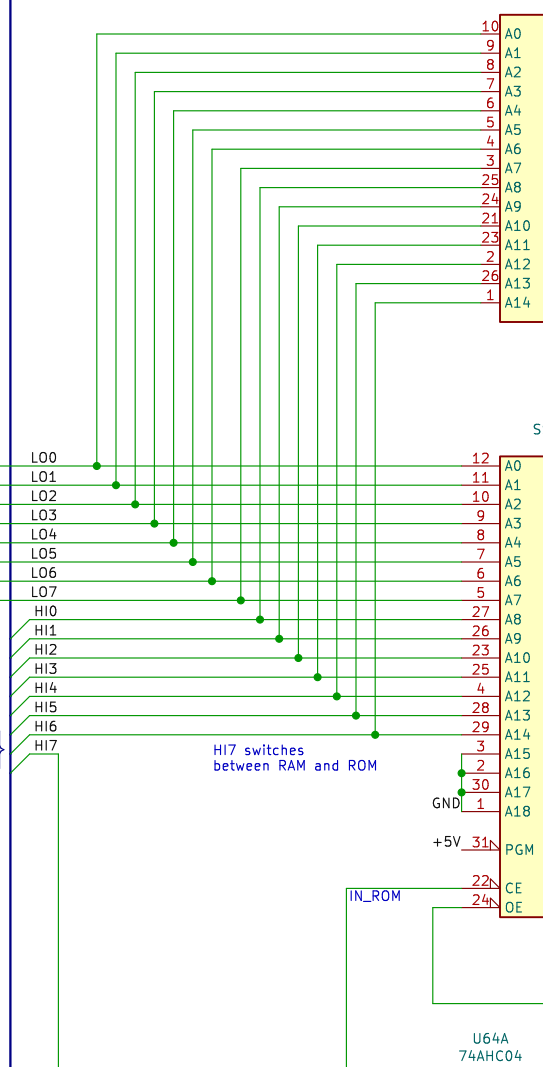
{LL[7..0]}



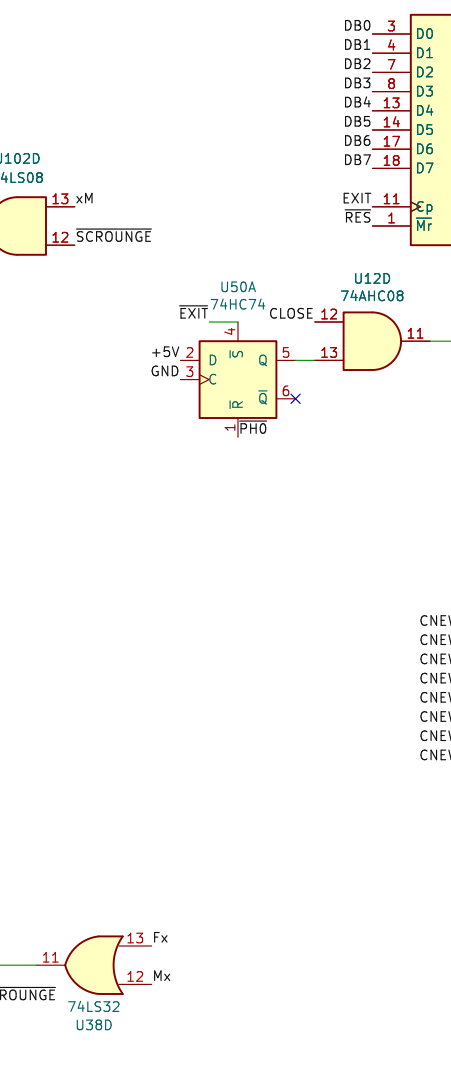
{LO[7..0]}



RAM/ROM



C (Code Page Index)



(Guest-Page Index)

