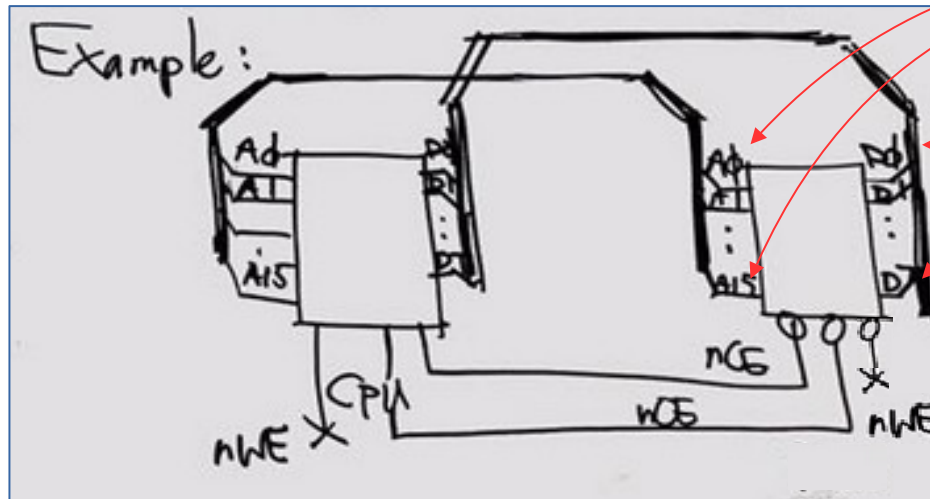# Examples (1)

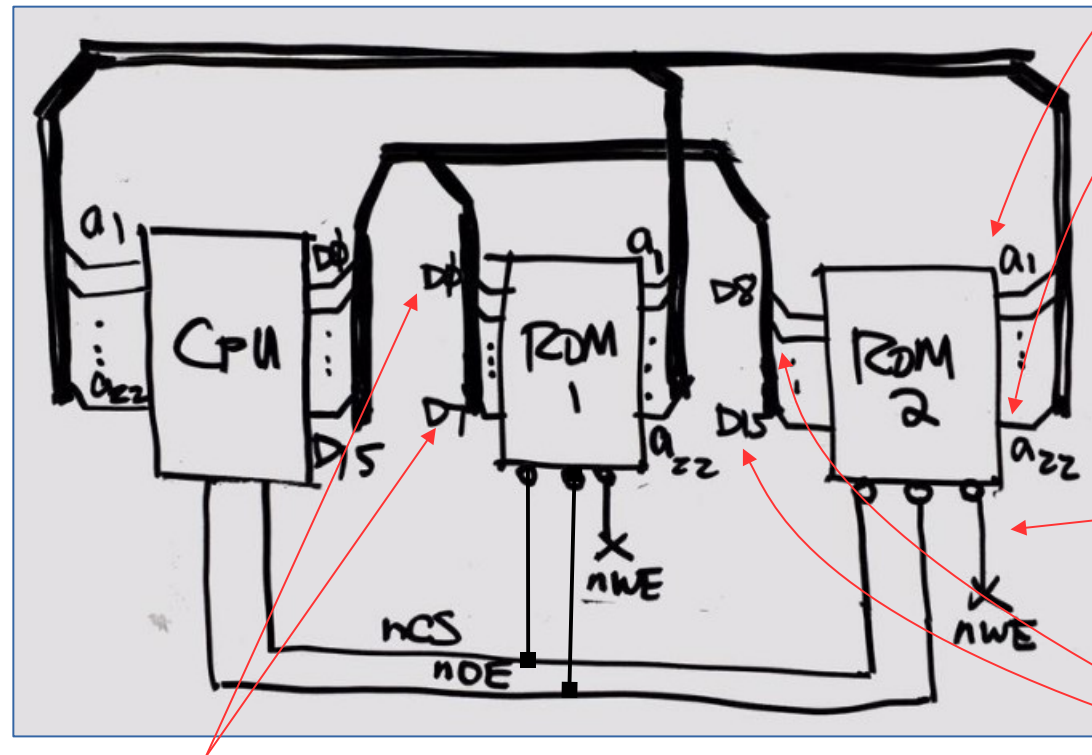a0 is the least significant bit and a15 is the most significant bit.

D0: the LSB (least significant bit) and D7: the MSB (most significant bit)

Control signals

Example: Given 64 Kbyte ROM, finish the design by drawing schematics.
1. Find the number of address bits for the address bus, by using 2^x technique; so x = 16. so a0 is the least significant bit and a15 is the most significant bit.

2. Mark clearly the data bus and its least significant and the most significant bit of the data bus line, so D0 is the LSB (least significant bit) and D7 is the MSB (most significant bit)

3. Mark clearly all control signals, nCE, nOW, nWE (not used, but it is good to include it)

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Examples (2)

a1 is the least significant bit and a22 is the most significant bit.

Control signals

D8: the LSB (least significant bit) and D15: the MSB (most significant bit) on ROM2

D0: the LSB (least significant bit) and D7: the MSB (most significant bit) on ROM1

Example: 2 banks of 4MB ROM, design by drawing schematics.
First, find the address lines: total 8 MB, so 2^x, x = 23, a22...a1a0, since 2 banks, eliminate a0, so we have 22 lines, a22 … a2a1

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