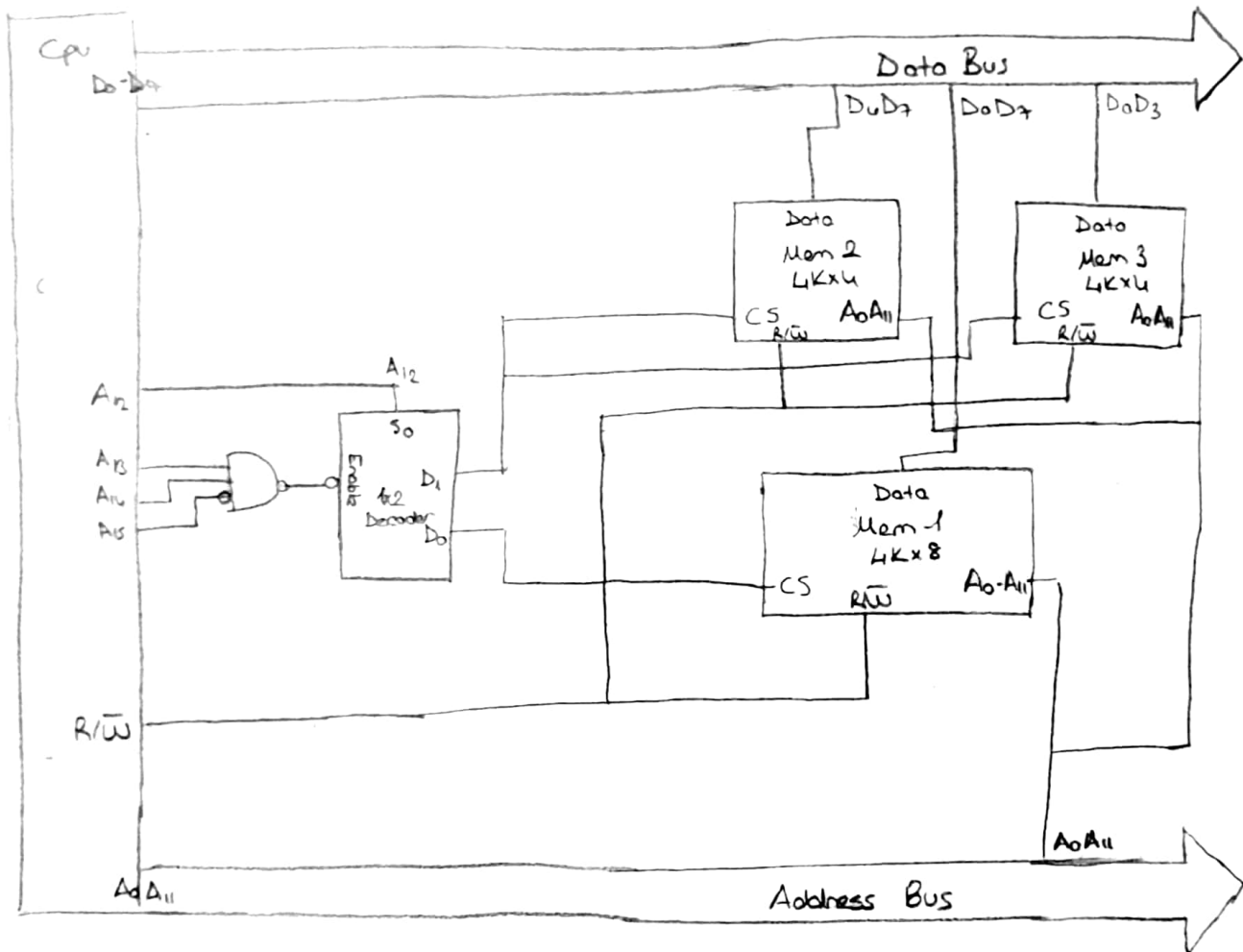


		Enable D ₀ 12 bits					
Module 1	\$6000	0110	0000	0000	0000		
	\$6FFF	0110	1111	1111	1111		

		Enable D ₁					
Module 2	\$7000	0111	0000	0000	0000		
	\$7FFF	0111	1111	1111	1111		



First of all, since I have one 8-bit and two 4-bit memory chips and Data Bus should be 8-bit. I connect the two 4-bit memory chips in parallel to create an 8-bit memory space. When I calculate the memory address ranges, I noticed that the first twelve bits of the address specify the location. While the 13th bit depends on the selected chips. Therefore A₁₂ is used as input to a 1x2 Decoder to choose between the two chip group. The address range A₀A₁₁ is connected to address bus. The range A₁₃A₁₅ remains unchanged so is appropriately connected to the decoder's enable input. I have connected the R/W signal from the CPU to each memory chips separately. When the first chip active, output data is D₀D₇. When the second and third chips are active. The data from the second chips in the D₈D₁₅ range. and data from the third chips is in the D₁₆D₂₃ range. Thus completing 8-bit data bus.