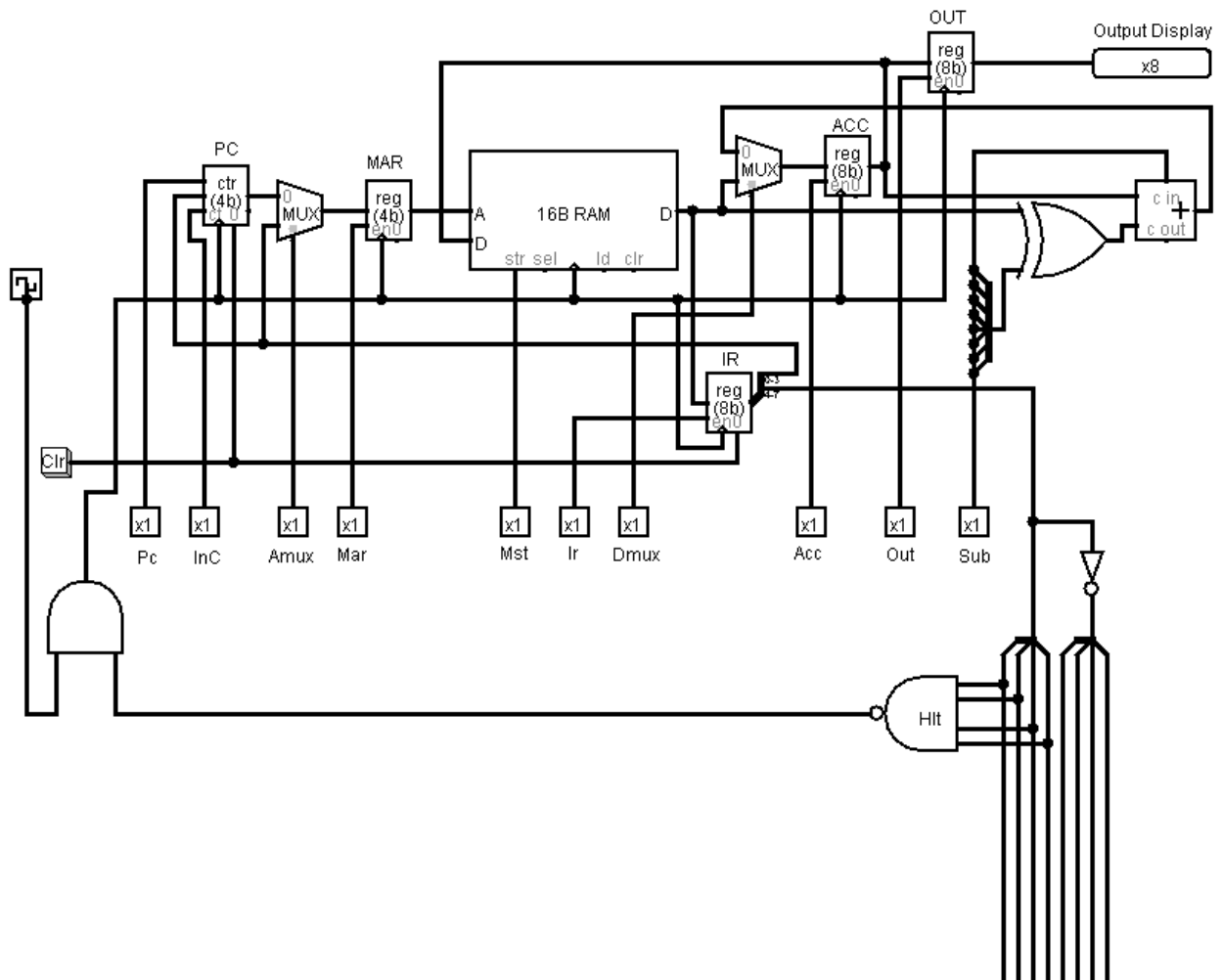


Part 1 - Build the SAM Datapath



10 controls

Part 2 - Coding and Testing the Instruction Fetch Sequence

Instruction fetch				
Control Code				Action
Inc	Mar	Mst	Ir	f(src) -> dst
0	0	0	0	PC -> MAR; inc(PC)
0	0	1	0	Mem(MAR) -> IR

Part 3 - Coding and Testing the Lda execution sequence.

Instruction execution transfer sequence				
Control Code				Action
	Mar	Mst	Acc	f(src) -> dst
Read	1	0	1	Mem(MAR) -> ACC

With the values given, it properly sent the Mem value to the ACC. As desired.

Part 4 - Instruction exec sequences for all SAM instructions.

Instruction execution transfer sequence				
Control Code				Action
	Mar	Mst	Acc	f(src) -> dst
Write	1	1	0	Acc -> Mem(MAR)

