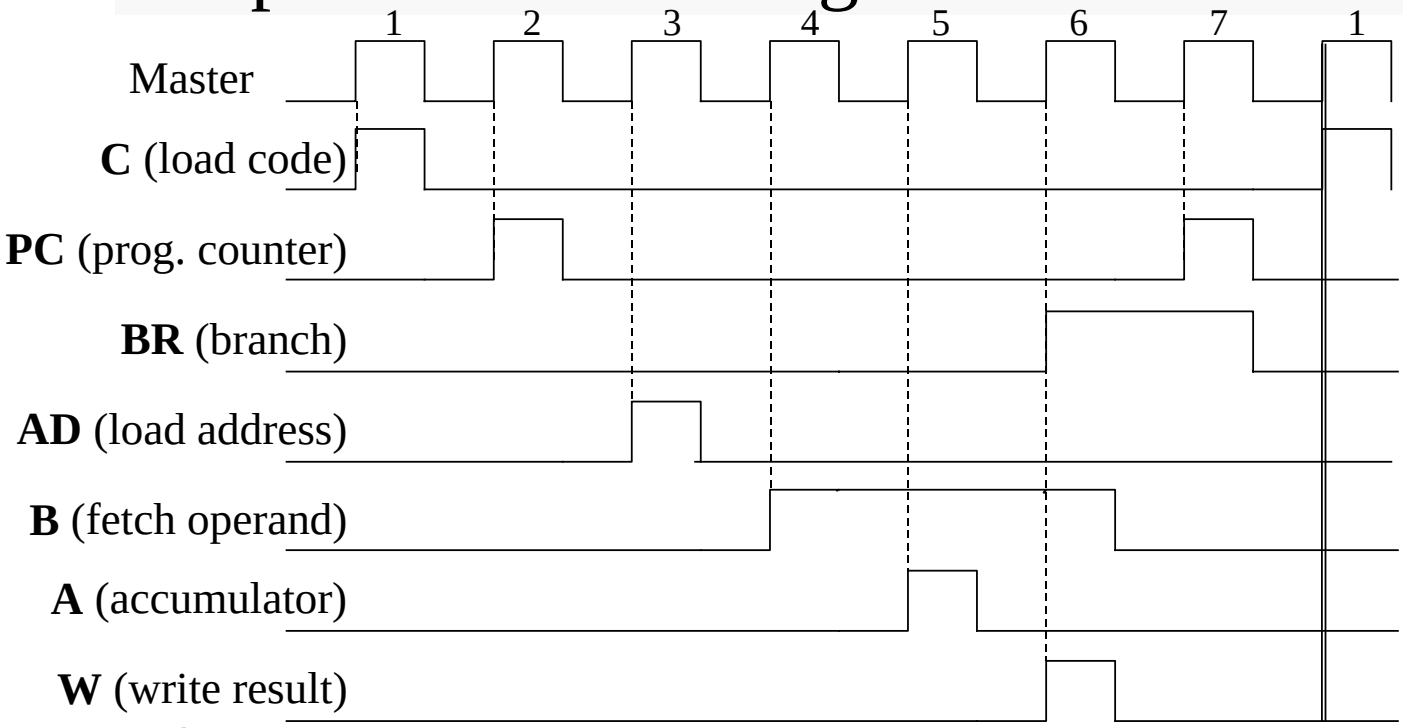
Simple CPU 2 Timing



Simple CPU 2

Available Commands:

code	operation	
00	Acc := Acc	**NOP**
01	Acc := NOT Acc	
02	Acc := Acc AND Mem[Address]	
03	Acc := Acc OR Mem[Address]	
04	Acc := Acc + Mem[Address]	**ADD**
05	Acc := Mem[Address]	**LOAD** (mem.)
06	Mem[Address] := Acc	**STORE** (mem.)
07	**if** Acc = 0 **then** PC := PC+Address	**BRANCH** (condit.)

Simple CPU 2

- Everything is now written as hexadecimal values
  e.g. address $A3_{(hex)} = 163_{(dec)}$
- Assume memory contents:
  mem[A0] = 0
  mem[A1] = 1
  mem[A2] = 2
- Example program for:
  mem[A3] := mem[A1] +mem[A2]

address	code	data	comment
00	05	A1	Load mem[A1]
02	04	A2	Add mem[A2]
04	06	A3	Store mem[A3]
06	05	A0	Load mem[A0]
08	07	EF	Branch -1

clear acc.

branch to 1 address back
= same command address
(dynamic halt)