

Control Unit

Knob & Switch Settings

A Addr:	B Addr:	ALU Op:	Switch Pos:	C Addr:	RW Addr:
00	00	00	0000	00	00000

Reset
PC: 0

Instruction Interpretation

+1

IR: 1111111111111111

Main Memory

View As:	Value:	RW
Inst	0: LOAD R0 5	<input type="radio"/>
Inst	1: LOAD R1 6	<input type="radio"/>
Inst	2: ADD R2 R0 R1	<input type="radio"/>
Inst	3: STORE 7 R2	<input type="radio"/>
Inst	4: HALT	<input type="radio"/>
+10	5: 9	<input type="radio"/>
+10	6: 1	<input type="radio"/>
+10	7: 0	<input checked="" type="radio"/>
Auto	8: 0	<input type="radio"/>

Data Path

Register Bank

C Bus Address	A Bus Address	B Bus Address
R0: 9	R0	R0
R1: 1	R1	R1
R2: 10	R2	R2
R3: 0	R3	R3

Execute

Pause

Animation Speed: Medium

Number Base: +10

A Bus

B Bus

10

10

C Bus

10

A: 10

B: 10

Arithmetic and Logic Unit (ALU)

C: 10

- ☐ Zero
- ☐ Negative
- ☐ Unsigned Overflow
- ☐ Signed Overflow

ALU Operation

A+B
A-B
A/B
A&B

10

Main Memory Bus

Machine/Assembly Language Instructions