

OpCode	Mnemonic	Mode	Operand	Description
0	READ			reads a value from the input unit into register A
1	WRITE			writes the value from register A to the output unit
2	LOAD	A(0)	address	reads a value from the specified memory address into register A
2	LOAD	B(1)	address	reads a value from the specified memory address into register B
4	STORE	A(0)	address	writes the value from register A to the specified memory address
4	STORE	B(1)	address	writes the value from register B to the specified memory address
6	ADD	REG(0)		adds the values in A and B, storing the result back in A
7	ADDI	A(0)	#	adds the value in A with the operand, storing the result back in A
7	ADDI	B(1)	#	adds the value in B with the operand, storing the result back in B
8	SUB	REG(0)		subtracts the value in B from A, storing the result back in A
9	SUBI	A(0)	#	subtracts the operand from A, storing the result back in A
9	SUBI	B(1)	#	subtracts the operand from B, storing the result back in B
A	MUL	REG(0)		Multiplies the values in A and B, storing the result back in A
B	MULI	A(0)	#	multiplies the value in A by the operand, storing the result back in A
B	MULI	B(1)	#	multiplies the value in B by the operand, storing the result back in B
C	DIV	REG(0)		divides the value in A by B, storing the result back in A
D	DIVI	A(0)	#	divides the value in A by the operand, storing the result back in A
D	DIVI	B(1)	#	divides the value in B by the operand, storing the result back in B
E	MOD	REG(0)		remainder from dividing the value in A by B, storing the result back in A
F	MODI	A(0)	#	remainder from dividing the value in A by the operand, storing the result back in A
F	MODI	B(1)	#	remainder from dividing the value in B by the operand, storing the result back in B
15	JUMPIFNOTZERO		address	loads PC with the specified address, if A does not contain 0
16	JUMPIFZERO		address	loads PC with the specified address, if A contains 0
17	JUMP		address	loads PC with the specified address
18	HALT			halts the CPU, no further instructions will be executed (until reset)
19	RETURN			Returns out of a method
1A	CALL		address	Calls a method
1B	INCSP		offset	adds the specified offset to SP. A negative offset allocates stack space (pushes); a positive value deallocates it (pops)
1C	LOADREL	A(0)	offset	reads a value from the specified memory address (SP + offset) into register A
1C	LOADREL	B(1)	offset	reads a value from the specified memory address (SP + offset) into register B
1D	STOREREL	A(0)	offset	writes the value from register A to the specified memory address (SP + offset)
1D	STOREREL	B(1)	offset	writes the value from register B to the specified memory address (SP + offset)