Instruction Set

OPCD	INSTRCT	TYPE	COMMENT
00	RD	I/O	Reads content of I/P buffer into a accumulator
01	WR	I/O	Writes the content of accumulator into O/P buffer
02	ST	I	Stores content of a reg. into an address
03	LW	I	Loads the content of an address into a reg.
04	MOV	R	Transfers the content of one register into another
05	ADD	R	Adds content of two S-regs into D-reg
06	SUB	R	Subtracts content of two S-regs into D-reg
07	MUL	R	Multiplies content of two S-regs into D-reg
08	DIV	R	Divides content of two S-regs into D-reg
09	AND	R	Logical AND of two S-regs into D-reg
0A	OR	R	Logical OR of two S-regs into D-reg
0B	MOVI	I	Transfers address/data directly into a register
0C	ADDI	I	Adds a data value directly to the content of a register
0D	MULI	I	Multiplies a data value directly with the content of a register
0E	DIVI	I	Divides a data directly to the content of a register
0F	LDI	I	Loads a data/address directly to the content of a register
10	SLT	R	Sets the D-reg to 1 if first S-reg is less than the B-reg; 0 otherwise
11	SLTI	I	Sets the D-reg to 1 if first S-reg is less than a data; 0 otherwise
12	HLT	J	Logical end of program
13	NOP	-	Does nothing and moves to next instruction
14	JMP	J	Jumps to a specified location
15	BEQ	I	Branches to an address when content of B-reg = D-reg
16	BNE	I	Branches to an address when content of B-reg <> D-reg
17	BEZ	I	Branches to an address when content of B-reg = 0
18	BNZ	I	Branches to an address when content of B-reg <> 0
19	BGZ	I	Branches to an address when content of B-reg > 0
1A	BLZ	I	Branches to an address when content of B-reg < 0