INSTRUCTION SET

	INSTRUCTION	OPCODE	OPERATION	DESCRIPTION
	NOP	00000000	No operation	No operation
	RESET	00000001 0000xxxx	R[R1] <- 0	Resets any given register R1.
MEMORY	LDAC	00000010 a	AC <- M[a]	Load value in Memory to AC.
	STAC	00000011 a	M[a] <- AC	Store value in AC to memory.
	MOVETOAC	00000100 000xxxxx	AC <- R[R1]	Moves any register R1 to AC.
	MOVEAC	00000101 000xxxxx	R[R1] <- AC	Moves AC to any register R1.
	CLAC	000000110	AC <- 0, PC <- 0, Z <- 0	Clears AC, clears PC, Clears Z flag.
	JUMP	00000111 a	Goto a	Jump to instruction address a.
Branching	JUMPZ	00001000 a	If (Z = 1) goto a	Jump to instruction address a if Z = 1.
ARITHMATIC	ADD	00001001 000xxxxx	AC <- AC + R[R1]	Add any given register R1 to AC.
	INC	00001010 000xxxxx	R[R1] <- R[R1] + 1	Increments any register R1 by 1.
	MUL	00001011 000xxxxx	AC <- AC * R[R1]	Multiply AC by any given register R1.
	XOR	00001100 000xxxxx	AC <- AC (+) R[R1] , if AC (+) R[R1] = 0 then Z <- 1, else Z <- 0	Performs XOR on AC with any given register R1. If result is zero set Z flag to 1.
	MULV	00001101 xxxxxxxx	AC <- AC * a	Multiply AC by any given constant value a.
	ADDV	00001110 xxxxxxxx	AC <- AC + a	Add any given constant value a to AC.