Code Table

Type	Instruction	Hex 0x, Binary 0b Opcode	Description
Arithmetic	Add X	0x3 0b0011	Adds value in AC at address X into AC, AC ← AC + X
	Subt X	0x4 0b0100	Subtracts value in AC at address X into AC, AC ← AC - X
	AddI X	0xB 0b1011	Add Indirect: Use the value at X as the actual address of the data operand to add to AC
	Clear	0xA 0b1010	AC ← 0
Data Transfer	Load X	0x1 0b0001	Loads Contents of Address X into AC
	Store X	0x2 0b0010	Stores Contents of AC into Address X
Indirect Addressing	LoadI	0xE 0b1110	Loads value from indirect address into AC e.g. LoadI address-pointer Gets address value from address-pointer, loads value at the address into AC
	StoreI	0xD 0b1101	Stores value in AC at the indirect address. e.g. StoreI address-pointer Gets value from address-pointer, stores the AC value into the address
I/O	Input	0x5 0b0101	Request user to input a value
	Output	0x6 0b0110	Prints value from AC
Branch	Jump X	0x9 0b1001	Jumps to Address X
	Skipcond © SkipLt0 SkipEq0 SkipGt0	0x8 Opcode 0x80 0b1000_0000 0x84 0b1000_0100 0x88 0x1000_1000	Skips the next instruction based on C: if © = - 000: Skips if AC < 0 - 400: Skips if AC = 0 - 800: Skips if AC > 0
Subroutine	JnS X	0x0 0b0000	Jumps and Store: Stores value of PC at address X then increments PC to X+1
	JumpI X	0xC 0b1100	Uses the value at X as the address to jump to
	Halt	0x7 0b0111	End the program Stop Running Instructions