Terrarum Memoryless Microcontroller ISA

Registers:	***ACC***	***X***	***Y***	***#***
	accumulator	x-register	y-register	(intermediate)
Ports:	***P0***	***P1***	***B0***	***B1***
	3-bit wires	3-bit wires	8-bit synch bus	8-bit synch bus
Opcodes:	***JPZ #***	***JNZ #***	***JMP #***	***NOP***
	JMP# if ACC=0	JMP# if ACC≠0	jump to line #	do nothing
	INX	***INY***	***INC***	***BRK***
	X += 1	Y += 1	ACC += 1	halts the program
	DEX	***DEY***	***DEC***	***LDX #***
	X –= 1	Y –= 1	ACC –= 1	X = #
	ADX	***ADY***	***ADD #***	***LDY #***
	ACC += X	ACC += Y	ACC += #	Y = #
	SBX	***SBY***	***SUB #***	***LDA #***
	ACC –= X	ACC –= Y	ACC –= #	ACC = #
	MUX	***MUY***	***MUL #***	***TXY***
	ACC *= X	ACC *= Y	ACC *= #	Y = X
	DVX	***DVY***	***DIV #***	***TXA***
	ACC /= X	ACC /= Y	ACC /= #	ACC = X
	NOX	***NOY***	***NOT***	***TYX***
	X = -X - 1	Y = -Y - 1	ACC = -ACC - 1	X = Y
	ANX	***ANY***	***AND #***	***TYA***
	ACC &= X	ACC &= Y	ACC &= #	ACC = Y
	ORX	***ORY***	***BOR #***	***TAX***
	ACC |= X	ACC |= Y	ACC |= #	X = ACC
	XOX	***XOY***	***XOR #***	***TAY***
	ACC ^= X	ACC ^= Y	ACC ^= #	Y = ACC
	SLX	***SLY***	***SHL #***	***XB0***
	ACC << X	ACC << Y	ACC << #	discards B0 input
	SRX	***SRY***	***SHR #***	***XB1***
	ACC >>> X	ACC >>> Y	ACC >>> #	discards B1 input
	WP0	***WP1***	***WB0***	***WB1***
	writes ACC to P0	writes ACC to P1	writes ACC to B0	writes ACC to B1
	WP0I #	***WP1I #***	***WB0I #***	***WB1I #***
	writes # to P0	writes # to P1	writes # to B0	writes # to B1
	RP0	***RP1***	***RB0***	***RB1***
	reads P0 to ACC	reads P1 to ACC	reads B0 to ACC	reads B1 to ACC
Notes:	WP0I, WP1I, WB0I, WB1I May be written without the trailing 'I'			
	IO from the Bus may have consequences depending on the system configuration			
	Reading from a Bus will block the execution until a value is available			
	Writing to a Bus will block the execution until the value is taken by the other device			