Hello

Command	constant	opcode	variation	description
CLEAR A	0	00000	1000000000	clear A Register
CLEAR B	0	00000	0100000000	clear B Register
CLEAR AC	0	00000	0010000000	clear AC Register
CLEAR BTN1	0	00001	1000000000	clear AC if btn1 pressed
CLEAR BTN2	0	00001	0100000000	clear AC if btn2 pressed
CLEAR BTN3	0	00001	0010000000	clear AC if btn3 pressed
CLEAR BTN4	0	00001	0001000000	clear AC if btn4 pressed
STA A	0	00010	1000000000	store AC in A register
STA B	0	00010	0100000000	store AC in B register
STA C	0	00010	0010000000	store AC in C register
STA LED	0	00010	0001000000	set first 6 bits of AC register to LED output
INV A	0	00011	1000000000	invert A register
INV B	0	00011	0100000000	invert B register
INV C	0	00011	0010000000	invert C register
INV AC	0	00011	0001000000	invert AC register
HLT	0	00100	0000000000	halt
ADD A	0	00101	1000000000	Add A to AC register
ADD B	0	00101	0100000000	Add B to AC register
ADD C	0	00101	0010000000	Add C to AC register
ADD 20	1	00101	0000000001 value	Immediate Add
SUB A	0	00110	1000000000	Sub A and AC register
SUB B	0	00110	0100000000	Sub B and AC register
SUB C	0	00110	0010000000	Sub C and AC register
SUB 20	1	00110	0000001010 value	Immediate Subtract
PRNT A	0	00111	1000000000	Print A reg to OLED
PRNT B	0	00111	0100000000	Print B reg to OLED
PRNT C	0	00111	0010000000	Print C reg to OLED
PRNT 110	1	00111	0110110110	Immediate Print value to OLED
RECT X Y W H	0 0	01000 00000	XXXXXYYYYY WWWWWHHHHH	Draw rect of in pos x and y of size w and h
CIRC X Y R	0 0	01001 00000	XXXXXYYYYY 00000RRRRR	Draw Circle of radius R in position X and Y
PIX X Y	0	01010	XXXXXYYYYY	Draw pixel in X and Y position
JMPZ A	0	01100	1000000000	Jump to A Register position if AC = 0
JMPZ B	0	01100	0100000000	Jump to B Register position if AC = 0
JMPZ C	0	01100	0010000000	Jump to C Register position if AC = 0
JMPZ 20	1	01100	0000000001 value	Immedate jump
WAIT A	0	01101	1000000000	Wait for amount of seconds as specified by A register
WAIT B	0	01101	0100000000	Wait for amount of seconds as specified by B register
WAIT C	0	01101	0010000000	Wait for amount of seconds as specified by C register
WAIT 20	0	01101 $_2$	0000000001 value	Immediate Wait for amount of seconds

Table 1: Instruction set Architecture