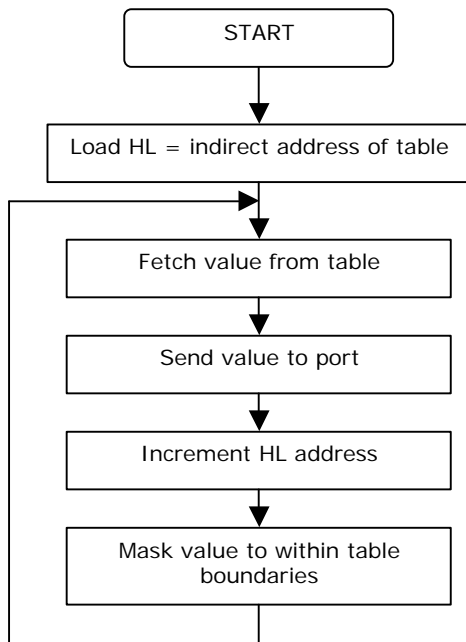


EZ-CPU CONTROL SYSTEM		
ANALOGUE & DIGITAL CONTROL - 1		
PROGRAM:	DIGITAL WAVE GENERATOR	IP MODULE: -
DESCRIPTION:	Sends a series of values to the DAC to produce various digital waveforms.	OP MODULE: QDAC
		CPU SPEED: 100 KHz

Using indirect addressing, a table of values can be sent to the output port that represent samples of a waveform.



<u>ADDR</u>	<u>INSTRUCTION</u>	<u>CODE</u>
00	LD HL,0x80	21 80 00
03	LD A,(HL)	7E
04	OUT (0xFF),A	D3 FF
06	INC HL	23
07	LD A,L	7D
08	AND 9F	E6 9F
0A	LD L,A	6F
0B	JR -13	18 F3

The following table has 32 samples for a sine wave

DATA TABLE								
Table length = 32 bytes								
<u>ADDR</u>	<u>DATA</u>							
80	7F	98	B0	C6	DA	EA	F5	FD
88	FF	FD	F5	EA	DA	C6	B0	98
90	80	67	4F	39	25	15	0A	02
98	00	02	0A	15	25	39	4F	67

What wave shape does this table produce?

Table length = 32 bytes								
<u>ADDR</u>	<u>DATA</u>							
80	00	10	20	30	40	50	60	70
88	80	90	A0	B0	C0	D0	E0	F0
90	FF	F0	E0	D0	C0	B0	A0	90
98	80	70	60	50	40	30	20	10

For a 16 byte data table change value at address 0x09 from 0x1F to 0x0F