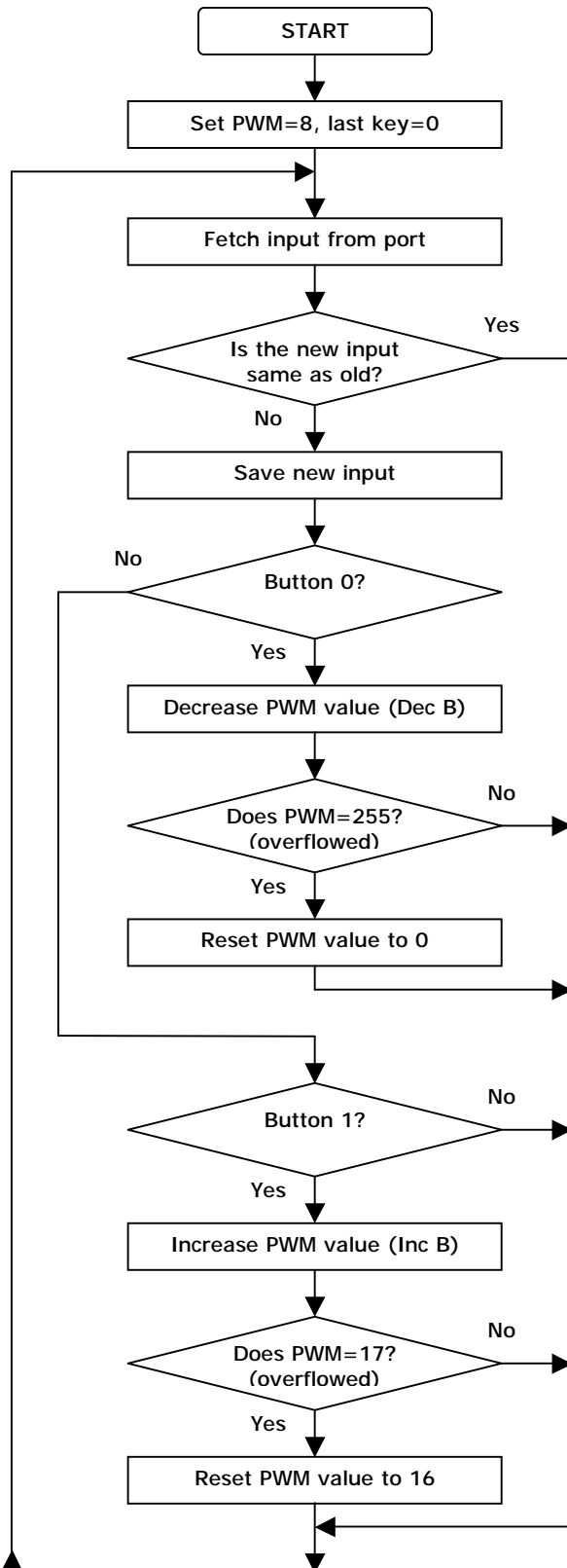


EZ-CPU CONTROL SYSTEM
MOTORS & SERVOS – 2a

PROGRAM: Motor Speed Controller	IP MODULE: -
DESCRIPTION: Uses PWM to control the speed of a motor or brightness of a bulb.	OP MODULE: QSM D
	CPU SPEED: 100 KHz

This routine produces a PWM in 16 steps. Pushing "LAST" will reduce speed/output and "NEXT" will increase. This section deals with monitoring the button inputs and allows the PWM value (B reg.) to be changed from 0 to 16. Note if inputs are the same on repeated loops, then the input is not checked. This prevents auto repeating if a button is held down.

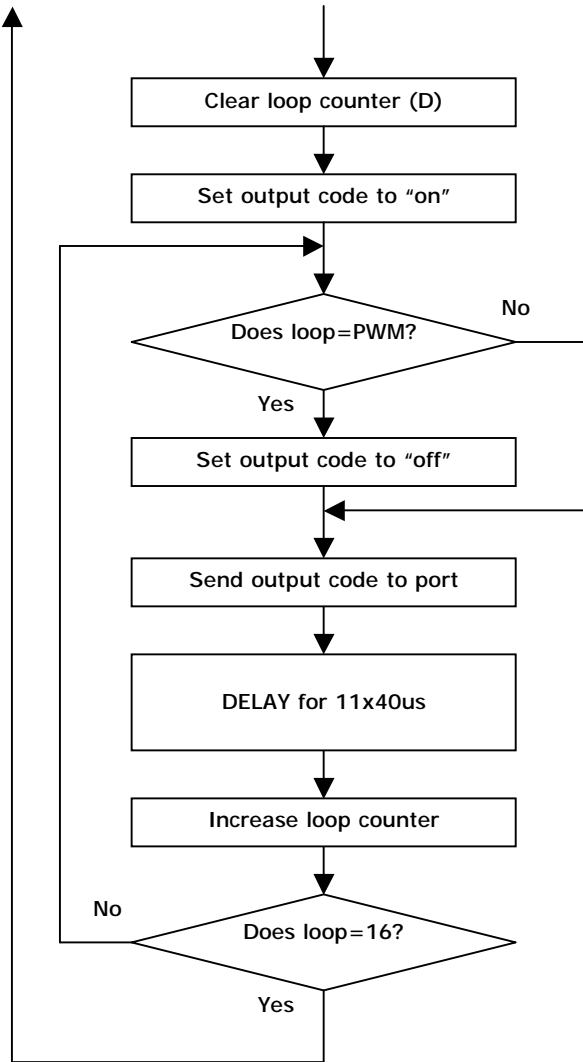


ADDR	INSTRUCTION	CODE
00	LD B,8	06 08
02	LD E,0	1E 00
04	IN A,(0xFE)	DB FF
06	CP E	BB
07	JR Z, +25	28 19
09	LD E,A	5F
0A	RRLA	0F
0B	JR NC +10	30 0A
0D	DEC B	05
0E	LD A,B	78
0F	CP 255	FE FF
11	JR NZ +15	20 0F
13	LD B,0	06 00
15	JR +11	18 0B
17	RRLA	0F
18	JR NC +8	30 08
1A	INC B	04
1B	LD A,B	78
1C	CP 17	FE 11
1E	JR NZ +2	20 02
20	LD B,16	06 10

EZ-CPU CONTROL SYSTEM
MOTORS & SERVOS – 2b

PROGRAM: Motor Speed Controller	IP MODULE: -
DESCRIPTION: Ctd.	OP MODULE: QSMC
	CPU SPEED: 100 KHz

This section switches on the output for a proportional amount of time to the PWM setting (B reg.) E.g. If PWM=1 the output is on for 1/16 of the time, if PWM=8 the output is on for half the time etc. To see more detail of operation, change CPU speed to 10KHz.



ADDR	INSTRUCTION	CODE
22	LD D,0	16 00
24	LD C,1	0E 01
26	LD A,B	78
27	CP D	BA
28	JR NZ +2	20 02
2A	LD C,0	0E 00
2C	LD A,C	79
2D	OUT (0xFF),A	D3 FF
2F	LD A,11	3E 0B
31	DEC A	3D
32	JR NZ -3	20 FD
34	INC D	14
35	LD A,D	7A
36	CP 16	FE 10
38	JR NZ -15	20 F1
3A	JR -51	18 CD

