mycobit instruction set

Command / Inst. Data	Get/Set Memory 'low' nibble (0)	Disp.Row = (1)	Wait (2)	Relative Jump - (3)	A = (4)	... = A (5)	A = ... (6)	A = ... (7)	Select Memory Page (8)	Jump to address in page (9)	Dec C and Jump if not 0 (A)	Dec D and Jump if not 0 (B)	Skip if ... (C)	Call (D)	Ret (E)	Get/Set Memory 'high' nibble (F)
0	A = C (Page) + B (Byte) 'low' nibble	0	1 ms	0	0	Row = A	A = Row		0	0	0	0		0		A = C (Page) + B (Byte) 'high' nibble
1	C (Page) + B (Byte) 'low' nibble = A	1	2 ms	1	1	B = A	A = B	A = A + 1	1	1	1	1	A > B	1		C (Page) + B (Byte) 'high' nibble = A
2		2	5 ms	2	2	C = A	A = C	A = A – 1	2	2	2	2	A < B	2		
3		3	10 ms	3	3	D = A	A = D	A = A + B	3	3	3	3	A == B	3		
4		4	20 ms	4	4	Disp.Row = A	A = Din	A = A - B	4	4	4	4	Din.0 == 1	4		
5		5	50 ms	5	5	Disp.Row0 = A.0	A = Din.0	A = A * B	5	5	5	5	Din.1 == 1	5		
6		6	100 ms	6	6	Disp.Row1 = A.0	A = Din.1	A = A / B	6	6	6	6	Din.2 == 1	6		
7		7	200 ms	7	7	Disp.Row2 = A.0	A = Din.2	A = A and B	7	7	7	7	Din.3 == 1	7		
8		8	500 ms	8	8	Disp.Row3 = A.0	A = Din.3	A = A or B	8	8	8	8	Din.0 == 0	8		
9		9	1 s	9	9	PWM = A	A = AD1	A = A xor B	9	9	9	9	Din.1 == 0	9		
A		A	2 s	A	A	Dout.3 = A.3	A = AD2	A = not A	A	A	A	A	Din.2 == 0	A		
B		B	5 s	B	B	Dout.2 = A.2			B	B	B	B	Din.3 == 0	B		
C		C	10 s	C	C	Dout.1 = A.1			C	C	C	C	S1 == 0	C		
D		D	20 s	D	D	Dout.0 = A.0			D	D	D	D	S2 == 0	D		
E		E	30 s	E	E				E	E	E	E	S1 == 1	E		
F		F	60 s	F	F		Save		F	F	F	F	S2 == 1	F		

mycobit I/O Pin mapping to micro:bit display and pins

Disp	micro:bit 5 x 5 LED Matrix Display			
Addr.0	Row0.3	Row0.2	Row0.1	Row0.0
Addr.1	Row1.3	Row1.2	Row1.1	Row1.0
Addr.2	Row2.3	Row2.2	Row2.1	Row2.0
Addr.3	Row3.3	Row3.2	Row3.1	Row3.0
	Page.3	Page.2	Page.1	Page.0

Addr and Page are only shown on the display when editing the program

Dout	digital outputs / analog I/O		
Dout.3	Dout.2	Dout.1	Dout.0
Pin 1*	Pin 2*	Pin 8	Pin 12

*Pin 1 or Pin 2 can only be used as an input or an output, not both

PWM
Pin 0

AD1	AD2
Pin 1*	Pin 2*

Din	digital inputs (with internal pull ups)		
Din.3	Din.2	Din.1	Din.0
Pin 13	Pin 14	Pin 15	Pin 16

S1	S2	Reset
Button A	Button B	Reset

Differences to MyCo/TSP highlighted in red