mycobit instruction set

Command / Inst. Data	Get/Set Memory 'low' nibble	Disp.Row =	Wait	Relative Jump -	A =	... = A	A = ...	A = ...	Select Memory Page	Jump to address in page	Dec C and Jump if not 0	Dec D and Jump if not 0	Skip if ...	Call	Ret	Get/Set Memory 'high' nibble
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**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 = A	A = AD2	A = not A	A	A	A	A	Din.2 == 0	A		
B		B	5 s	B	B	Dout.0 = A.0			B	B	B	B	Din.3 == 0	B		
C		C	10 s	C	C	Dout.1 = A.0			C	C	C	C	S1 == 0	C		
D		D	20 s	D	D	Dout.2 = A.0			D	D	D	D	S2 == 0	D		
E		E	30 s	E	E	Dout.3 = A.0			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

PWM
Pin 0

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

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