# MACH3
MU30-M3 Active Low
30 input USB Keyboard Emulator

Board and connections:
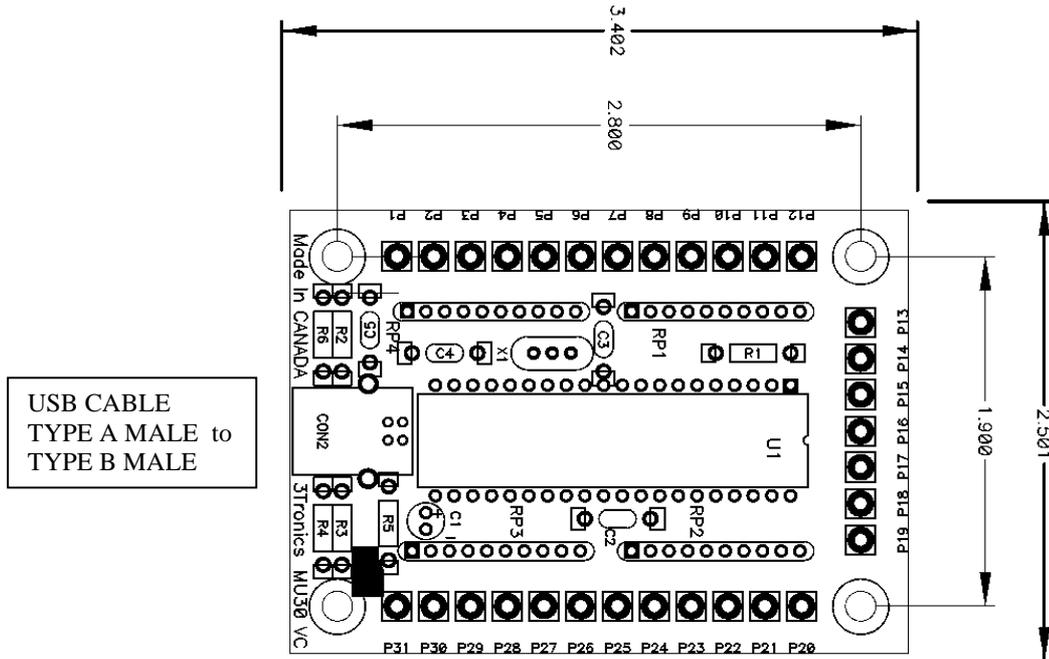
P1 – P30 : 30 CMOS Active low switch inputs. 5V=off,0V=on (send scancode)
P31 : Common 0V (Ground) for switches.

Switch circuit
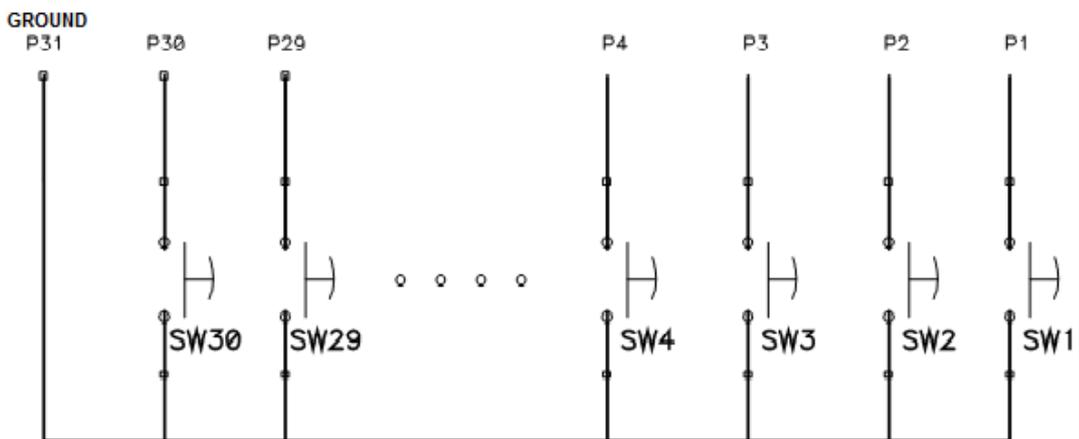
Fixed KeyMappings

P1	Alt R	Start		P16	Down arrow	-Y
P2	Alt S	Stop		P17	Left arrow	-X
P2	Alt X	Zero X		P18	Right arrow	+X
P4	Alt Y	Zero Y		P19	Page up	+Z
P5	Alt Z	Zero Z		P20	Page Down	-Z
P6	Alt J	Jog		P21	Space	Feed Hold
P7	Alt N	Single		P22	Tild	RESET
P8	Alt W	Reverse		P23	F5	Spindle CW
P9	Alt B	spare		P24	F10	Feed +
P10	Alt F	spare		P25	F11	Feed -
P11	Ctrl V	spare		P26	KB Plus	Spindle +
P12	Ctrl Q	spare		P27	KB Minus	Spindle -
P13	Ctrl O	Goto 0		P28	Enter	Esc
P14	Ctrl W	rewind		P29	Esc	1
P15	Up arrow	+Y		P30	Tab	2

USB Cable required:

TYPE A MALE to TYPE B MALE

Switch Example:

CONNECT EACH SWITCH OTHER SIDE TO P1 -> P30

CONNECT ALL GROUNDS TOGETHER
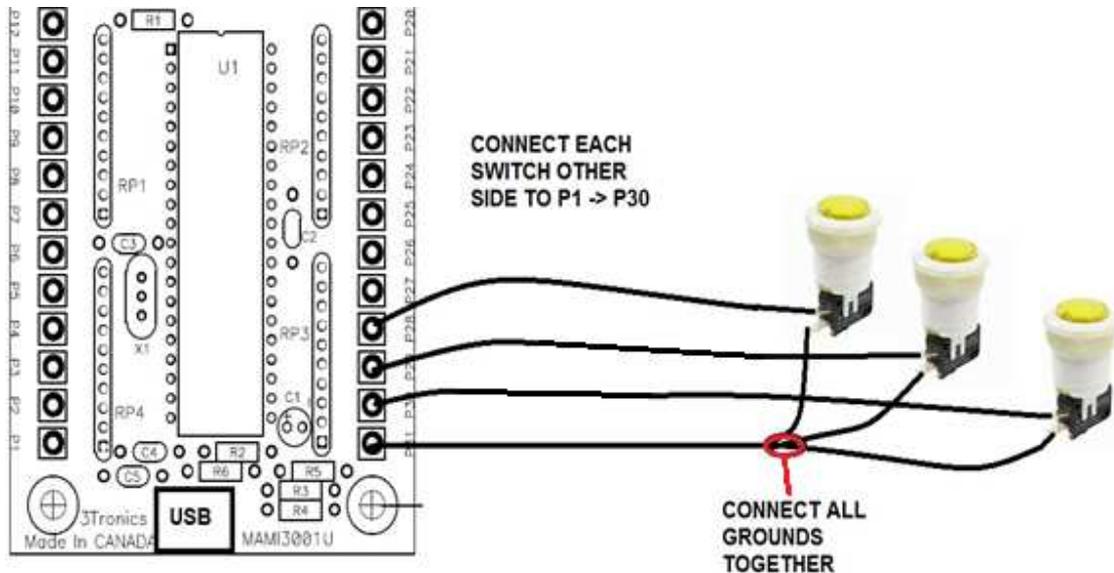
Software Remapping:

For MACH3 you will need to remap the Zero x,y,z using
Mach3Screen Designer and ScreenTweak, (in Mach3Screen.zip)
available from link below or email me if you cannot find it.
https://www.machsupport.com/downloads-updates/screensets/

For more advanced remapping for the computer in general ,
http://www.autohotkey.com/ provides a great tool.

Warning:

Be careful not to short out connections on bottom of board to ground.
Always place the board on a **non conducting** surface. Shorting the
connector pins to ground may blow a fuse on the motherboard supplying
+5Volts, it's a real pain to fix.

Support , questions or suggestions:

3Tronics Technical Services

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