Threeboard Interface Manual

The Threeboard has three keys, with no labels. They are distinguished by their position; left, middle, and right. Inputs are done through a series of chords (combinations of 1 or more keys pressed at the same time) and composed to form the same outputs as a fully-keyed keyboard.

Whenever you see a triplet of 1s and 0s, that represents a chord. If the manual tells you to press "001 110 111", that means to press the left most key, then press the right and middle key at the same time, then press all three keys at the same time.

As of the v0 implementation, keystrokes are registered after all keys have been unpressed. This means that holding down the right key, then holding down the left key, then unpressing the right key then unpressing the left key, will not send any signals until the left key is unpressed, and it will process as 101. This means that each keystroke must be completely separate. Due to the lack of visual feedback, it's important that all keystrokes are read perfectly.

Morse Code is used as inspiration for the basic alphabet and symbol table, and allows for some skill transferability. There are two morse code input modes, one that uses 3 keys but has no timing requirements, and a clock morse code mode that requires operators to properly time their keys, just like a traditional morse code operator. This uses only 1 key. This second mode is more difficult and is not yet implemented.

Modes:

0	Morse Code
1	Modifiers
2	Arrow Keys
5	System

Global Chords:

These work regardless of what state or mode the keyboard is in.

011	Next mode
111	Reset to a clean-slate mode 0

Morse Code:

100	▪
010	▬

Morse Code Mode (Mode 0):

A	·—	1	·————	001	End Letter
B	—···	2	··———	001 001	Space
C	—·—·	3	···——	110	Reset State
D	—··	4	····—		
E	·	5	·····		
F	··—·	6	—····		
G	——·	7	——···		
H	····	8	———··		
I	··	9	————·		
J	·———	10	—————		
K	—·—	.	·—·—·—		
L	·—··	,	——··——		
M	——	:	———···		
N	—·	;	—·—·—·		
O	———	'	·————·		
P	·——·	-	—····—		
Q	——·—	/	—··—·		
R	·—·	(	—·——·		
S	···	)	—·——·—		
T	—	"	·—··—·		
U	··—	=	—···—		
V	···—	+	·—·—·		
W	·——	*	—··—		
X	—··—	@	·——·—·		
Y	—·——				
Z	——··				

Modifier Mode (Mode 1):

After inputting a modifier (001) the keyboard returns to mode 0, and the next key sent will have the specified modifier. For example, <C-T>is 011 100 001 (ctrl) 011 010 001 (shift) 010 001 (t)

100	001	ctrl
100 100	001	win
010	001	shift
010 010	001	alt

Arrow Keys Mode (Mode 2):

You can memorize this easily by imagining 110 as an exemplifier for the key that follows, and 110 110 an extension of that.

Code	Keystroke	Move By
100	Left Arrow	Character
001	Right Arrow	Character
010	Up Arrow	Line
101	Down Arrow	Line
110 100	Ctrl Left Arrow	Word
110 001	Ctrl Right Arrow	Word
110 010	Ctrl Up Arrow	Paragraph
110 101	Ctrl Down Arrow	Paragraph
110 110 100	Home	Entire Line
110 110 001	End	Entire Line
110 110 010	Ctrl Home	Entire Document
110 110 101	Ctrl End	Entire Document

System Mode (Mode 5):

100	Halt