

This Grid 1550 keyboard has a UK layout as shown below. The row and column signals from the key matrix have connectors that accept push pins from a standard ribbon cable. The ribbon cables have been soldered directly to the Teensy I/O pads, making sure to avoid using I/O #13 (the LED control).



Running the matrix decoder code provided the 11 x 13 key matrix which was converted to the Teensy LC I/O pins, as shown below.

I/O#	23	22	24	21	25	20	19	18	17	16	15	14	12
1						F1	F2	F3	F4	F5		F9	
2	LSHFT	FN	RSHFT		Space								LALT
3						esc	1		F6	F7	F8	F10	
4						tab	Q	W	2	3		6	
5						CAPLK	A	S	E	4	5	7	
6				LEFT		LCNT		Z	F	D	8	9	
7				DOWN		RALT	X	C	G	R	T	0	
8				NUMLK		SCRLK	V	B	H	Y	U	-	
9				TILDE		UP	N	M	J	K	I	INS	
10				BKSLSH		RBRACE	,	BKSP	L	DEL	O	=	
11				RIGHT		ENTER	SLASH	.	"	;	LBRACE	P	

There were some anomalies with this keyboard due to its UK layout. Compiling the Arduino code with the UK keyboard selection allowed most of the keys to function properly. The exception was the “#” key and the “\” key. When a KEY_BACKSLASH is sent from the Teensy to the host, it produces a # so this was accounted for in the matrix. There was no easy way to produce a \ so the code was modified to send Alt 92. It’s not very pretty but at least it works.

The Teensy code was modified with a numlock matrix that provides a number pad when the NumLock key is selected. The number pad keys are shown below.

