

I2C to Keyboard interface

Here follows a short description on how to use my `i2c_kbd` library, with this you could use any AVR circuit with a matrix keyboard with minimal extra hardware. The interface from the i2c to keyboard consists of a PCF8574 8bit I/O module, so with only 2 pins you could interface the keyboard (or 3 pins if you use interrupt).

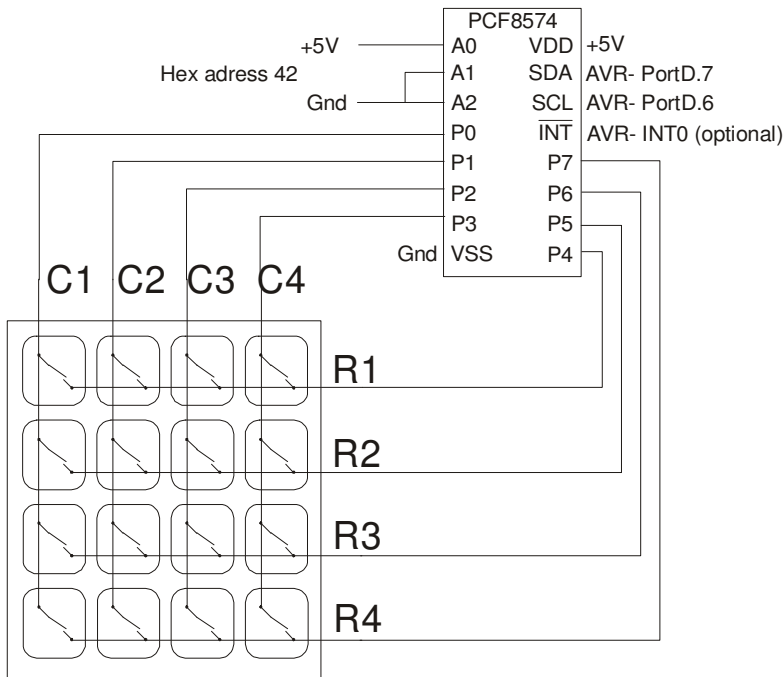
What you need to add in the beginning of your program is the following:

```
$lib "Key_i2c.lib"  
$external _key_scan  
Const Pcf8574_lcd = &H42  
Config Scl = Portd.6  
Config Sda = Portd.7  
Dim _key_scan As Byte  
!rcall _Key_init  
.  
.  
.  
!rcall _Key_Scan  
if _key_scan = ? then ...
```

If using interrupts add the following (skip last section from above):

```
Enable Interrupts  
Config Int0 = Falling  
On Int0 _int0_label  
Enable Int0  
.  
.  
.  
if _key_scan = ? then ...  
.  
.  
.  
_int0_label:  
!rcall _Key_Scan  
Return
```

The PCF8574 is connected as follows:



A0, A1 and A2 gives the address of the chip

A0	A1	A2	Pcf8574_lcd
0	0	0	&H40
1	0	0	&H42
0	1	0	&H44
1	1	0	&H46
0	0	1	&H48
1	0	1	&H4A
0	1	1	&H4C
1	1	1	&H4E

To observe when using interrupts!

Disable int0 before doing anything time consuming (RS232, LCD etc.) otherwise you may get problem with those routines, when you press a key the program will jump to `_key_scan`.

The variable `_key_scan` holds the value of the key pressed (0 if none)

	C1	C2	C3	C4
R1	1	2	3	4
R2	5	6	7	8
R3	9	10	11	12
R4	13	14	15	16