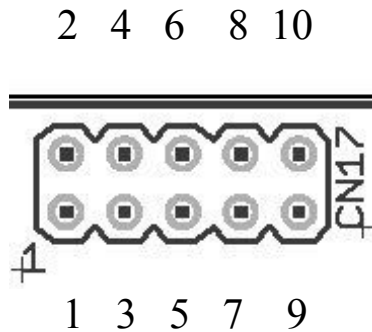


Implementing Bluetooth with the Sparkfun BlueSmirf

To implement Bluetooth with a 'Smirf, firstly ensure that the ESD200 unit is not fitted and None of the jumpers on J1 are fitted.

All the connections necessary are provided via CN17, the layout of which is shown below



The pins on the 'Smirf are labeled as follows

CTS
PWR
GND
TX
RX
RTS

The 'Smirf does not require flow control so CTS should be linked to RTS.

CN17	'Smirf	Function
9	PWR	5V supply
6	GND	0V supply
2	TX	Transmit
4	RX	Receive

Once connected and powered the Green LED on the 'Smirf should flash approx 2Hz.

Open a Terminal in either Hyperterm or teraterm and connect as you would normally to the Bluetooth COM port.

The Green LED on the 'Smirf should go off and the RED led should be on solid.

On the terminal application, type

+++ <CR>

Where <CR> is carriage return or enter key

You may not see the characters being echoed and you may nor may not see the unit respond with OK. This is dependent upon your current settings for the Smirf.

Type

ATSI,8<CR>

You may get an OK followed by a response such as..

01D8,0000,0000

The first part is the baudrate, the second is the Parity, The third is the Stop bits

The baudrate is returned in Hex but must be set in decimal

The Baudrate values are as follows

Baudrate	Decimal	Hex
1200	5	5
2400	10	A
4800	20	14
9600	39	27
19.2k	79	4F
38.4k	157	9D
57.6k	236	EC
115.2k	472	1D8
230.4k	944	3B0
460.8k	1887	75F
921.6k	3775	EBF

In the example, 01D8 indicates the baudrate is set to 115200.

To change the baudrate, type

ATSW20,<Baudrate>,<Parity>,<Stop Bits>,<Store>

i.e

ATSW20,472,0,0,0<CR> will set a baudrate of 115200

This will set the baudrate between the 'Smirf and the UART of the p.Brain and t must be set to the same value as the p.Brain. It does not effect the baudrate between the P.C. and the Bluetooth dongle/device on the P.C.