**Nabaztag V1 -- Connections List**

*All connections from PIC18LF6627 as in FCC schematics*

*(in FCC schematics the PIC is a PIC18LF6525)*

**Communication Ports:**

4-pin header J3 - UART

From top to bottom:

\* pin1 -> TX1 (through 100 ohm resistor)

\* pin2 -> RX1 (through 100 ohm resistor)

\* pin3 -> GND

\* pin4 -> VDD - 3.3 V

*Compatible with TTL serial -(tested and works ( 9600 baud))*

5-pin header J2 - PROG

From top to bottom:

\* pin 1 -> RB6

\* pin 2 -> RB7

\* pin 3 -> GND

\* pin 4 -> VDD - 3.3 V

\* pin 5 -> MCLR/Vpp

*Compatible with PICkit3 and ICD3-(tested with ICD3 - works)*

**Ear Motors:**

Ear-Motor 1:

\* RF0 - MCC1A - output to L293DNE port 1A

\* RF1 - MCC1B - output to L293DNE port 2A

(\* RA3 to REF MCC1 is cut through)

Ear-Motor 2:

\* RF2 - MCC2A - output to L293DNE port 3A

\* RF3 - MCC2B - output to L293DNE port 4A

(\*RC1 to REF MCC2 is cut through)

Rotary encoder (MCP6002) for Ears position:

\* RA4 - CMPT MCC1 - input from MCP6002 port OUT A

\* RC0 - CMPT MCC2 - input from MCP6002 port OUT B

**RGB LEDs**

LED driver(TLC5922)--(SPI)

\* RA5 - MODE LED - output to TLC5922 port MODE

\* RB5 - XLAT LED - output to TLC5922 port XLAT

\* RC3 - SPI-SCK - SPI clock port connected to TLC5922 port SCLK

\* RC5 - SPI-SD0 - SPI output port connected to TLC5922 port SIN

--( SOUT of TLC5922 not connected)--

**Oscillator 24 Mhz Quartz**

\* OSC1/CLKI

\* OSC2/CLKO/RA6

**Head-Button**

\* RB0 - SWITCH

**3 Way Sensor (for volume control)**

\* RA0 - SENSOR

(Connected to 3.3v directly/3.3v through 1k resistor/ GND through 1k resistor)

**Serial port - UART**

\* RC6/TX1

\* RC7/RX1

**Programmer port - PROG**

\* RB6/PGC

\* RB7/PGD

\* MCLR(low)/RG5

**Flash Memory - Atmel AT45DB161B (SPI)**

*(different from FCC schematics, there it is a AT45DB081B-TC)*

\* RB1 - BUSY MEM - output to AT45 port RDY/BUSY(low)

\* RB3 - RST MEM - output to AT45 port RESET(low)

\* RB4 - CS MEM - output to AT45 port CS(low)

\* ?? - WP MEM - input or output to AT45 port WP(low)

---SPI---

\* RC3/SCK/SCL - SPI SCK - SPI clock to AT45 port SCK

\* RC4/SDI/SDA - SPI SDI - SPI input to AT45 port SO

\* RC5/SDO - SPI SDO - SPI output to AT45 port SI

**Audio/Sound Chip/Codec OKI ML2870A (SPI)**

\* RB2 - IRQ OKI - in/output to OKI port IRQ

\* RC2 - CLK OKI - in/output to OKI port CLOCK

\* RA1 - RST OKI - output to OKI port RESET

\* RA2 - CS OKI - output to OKI port CS

---SPI---

\* RC3/SCK/SCL - SPI SCK - SPI clock to OKI port D2/SCLK

\* RC4/SDI/SDA - SPI SDI - SPI input to OKI port D1/SDOUT

\* RC5/SDO - SPI SDO - SPI output to OKI port D0/SDIN

**PCMCIA - to old Wifi card ( 21ports ! )**

\* RF4,RF5,RF6, RF7 - to WLAN ports RST,OE,WE,IORD

\* RG4 - to WLAN port IOWR

\* RE0 to RE7 - to WLAN ports A0-A7

(A7 connected to WLAN ports A7,A8 and A9)

\* RD1 tot RD7 - to WLAN ports D0-D7