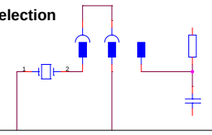
External ICSP
Connector
RJ11 ?

External/Internal
Programming Sel.

Primary/Secondary
Processor
Programming Sel.

Oscillator Selection

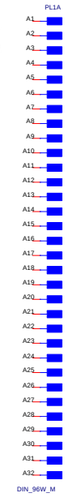


RB3, RB6, RB7, MCLR

RC6, RC7

Socket for 16F877A/18F452
Primary Processor

DIN Connector
on end of PCB



Breadboard Area
Consists of all spare PCB area
filled with dual in line pads or
"measles dot" pads on 0.1" centres

RS232 to ICD/
Target Selector

Serial Interface
MAX232 family interface
DB9 Connector

ICSP Drive

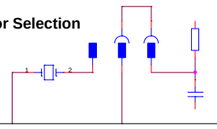
Serial Interface

PIC 16F876/7
Programmer/ICD
Interface
soldered in circuit

USB to ICD/
Target Selector

USB Interface
FTDI232
USB Connector

Oscillator Selection



RB3, RB6, RB7, MCLR

RC6, RC7

Socket for 16F877A/18F452
Secondary Processor

Primary Processor
Serial Intf Selection

Secondary Processor
Serial Intf Selection

"Logic Probe" Area
One ULN200x driver with
7 discrete LEDS
(possibly a mix of colours)
for pin activity diagnosis
or Output Indicators

Use flying leads with single pin connectors
to connect to any PIC pin on either processor.

'Wall Wart' Connector
Bridge Rectifier & Capacitor
5v Regulator on Heat Radiator
Multiple reg if neccessary

jumpers to remove Wall Wart
Input if derived from DIN Connector

5V to ICD/ Input Intf

5V to primary Processor socket

5V to secondary processor socket

5V to Display/Breadboard

Input Area.
Push Buttons and/or
Toggle switches with
pull up/down resistors

Connected to pins on
Primary Processor

Output Area
Two ULN200x drivers with
two 7 segment LED displays

connected to pins on
Primary Processor

Output Area
One ULN200x driver or
discrete transistors for relay or
motor drive experiments etc.

connected to pins on
Primary Processor

Notes
1. PCB single height Euro Card, possibly extended length
100mm x 160mm or 100mm x 220mm (4 x 6 or 4 x 9 inches)

2. For the cost of one DB9 it may be possible to have a second
RS232 interface available as each could use half a MAX202.

3. Where jumper selectors require multiple poles, it is expected that
DIL component carriers with every 2nd circuit O/C will be used