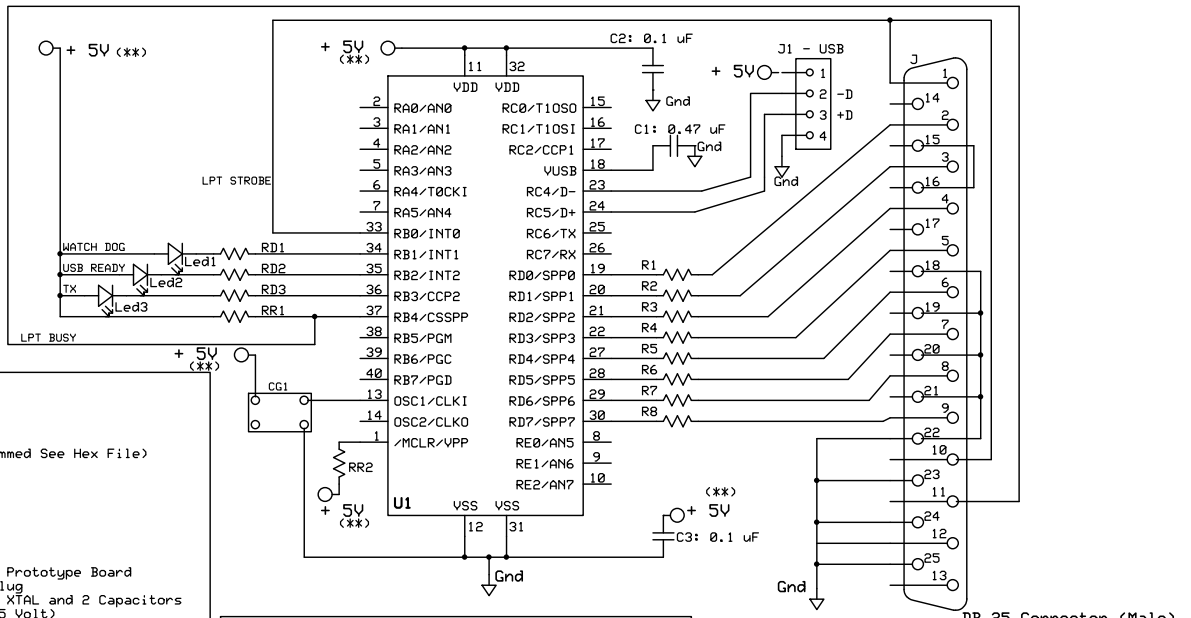


# CAPTURE PRINTER DATA AND REDIRECT IT TO THE USB PORT (USB SERIAL PORT EMULATOR)

(\*) Microchip Drivers: [USB Device - CDC - Basic Demo] (Download from Microchip site or from: [electra.altervista.org](http://electra.altervista.org))

(\*\*) This module is self-powered, it sources the power from the USB



- COMPONENTS:**
- |                             |   |
|-----------------------------|---|
| <b>Hardware:</b>            |   |
| RD1 to RD3:                 | 560 OHM   |
| R1 to R8:                   | 120 OHM   |
| RR1, RR2:                   | 10 KOHM   |
| U1:                         | 18F4550 (Programmed See Hex File)               |
| D1, D2, D3:                 | LED   |
| C1:                         | 0.47 uF   |
| C2:                         | 0.1 uF  |
| C3:                         | 10 uF   |
| C4:                         | 10 uF   |
| C5:                         | Tantalum: 0.33 uF                               |
| DB 25:                      | Connector (Male)                                |
| PCB:                        | Printed Circuit Board or Prototype Board        |
| J1:                         | 4 Pin Connector for USB Plug                    |
| CG1:                        | can be replaced by 20 Mhz XTAL and 2 Capacitors |
| CG1:                        | 20 Mhz Clock Generator (5 Volt)                 |
| <b>Firmware / Software:</b> |   |
| Hex File:                   | Version 14 for PIC 18F4550                      |
| Microchip USB Driver:       | (See * in the header)                           |

**LED Functions:**

TX LED is lit during the transmission  
 USB Ready LED is lit if the USB is ready in receiving the TX data  
 WATCH DOG LED is continuously flashing showing the PIC is running

**USB Connector:**

J1 USB Connections Details:  
 TO PC USB PORT with an USB cable

+5V	1
-D	2
+D	3
Gnd	4

J1 - USB

**LPT Paralle Port remarks:**

Rem1: Ground Pins: 25,24,23,22,21,20,19,18  
 Rem2: Connection between 15 and 16 (Printer Error & Printer Init)  
 Rem3: Connect Pin 12 to Gnd (Printer Paper End)  
 Rem4: Connect Pin 1 and 10 to U1-RB0 (Strobe)  
 Rem5: Connect Data RD0 - RD7 to Pin2 - Pin8  
 Rem6: DB 25 Pins: 13, 14, and 17 are not connected  
 Rem7: No 5V power supply required, the power is sourced from USB

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**Printer to USB Capture**

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