

USB TTL Tool for LDK

Introduction

The LDK(Laser Distance measure Kit) implements like a Human Interface Device (HID) class USB device. Software applications in most operation systems that can easily read data from HID class devices without customize drivers. This makes it simple to create software that interface to the LDK from Window or Linux. The typical UART output uses a serial RS232 with standard communication transmission protocol, which is the most common configuration for PC serial communications today. The common line speed has a Baud Rate of 9600.

For Blue tooth version, it connects to USB through another Bluetooth module like P2P for communication. Through Bluetooth to USB TTL tool, it can be achieved the communication between OS(Operating System) and LDK.

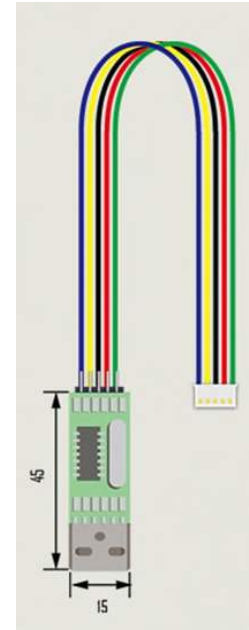
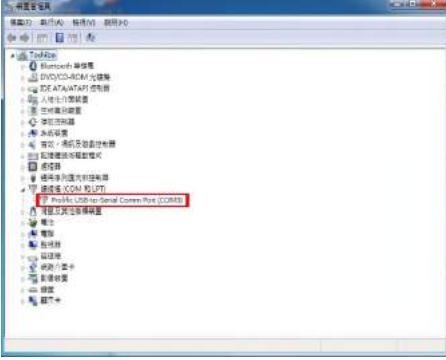




Fig. 1

System Installation Setup (Rs232)

<p>Prepare:</p>	
<p>Step 1.</p>	<p>Install PL-2303 Driver Installer for RS232 convert board</p> <ul style="list-style-type: none"> PL-2303 Vista&Win7 Driver Installer.exe PL-2303 WinXP Driver Installer.exe PL-2303 Win10 Driver Installer.exe <p>Note: Customer might need to provide OS (operation system) version if error occurs, as we will need to check if RS232 data transmission SW available.</p>
<p>Step 2.</p>	<p>Connect RS232 connection to LDK</p>

<p>Step 3.</p>	<p>Create USB connection to OS.</p> <p>Insert RS232 convert to USB board to PC USB port, system will automatically shows new device found;</p> <p>Select automatic installation</p> <p>Please check COM PORT number once successfully installed.</p>  
<p>Step 4.</p>	<p>Software verification</p> <p>Install the software for testing communication then initiate the software</p> <p><input checked="" type="checkbox"/> SENSOR DEBUG V2.7 setup.exe</p> 
<p>Step 5.</p>	<p>Communication initiate</p> <p>Set Com port to the right connection (port number fund in Step 2) and baud rate to 9600.</p> <p>Click "Open Com" and the connection is initiated if the gray circle turns RED. (Fig. 2)</p>

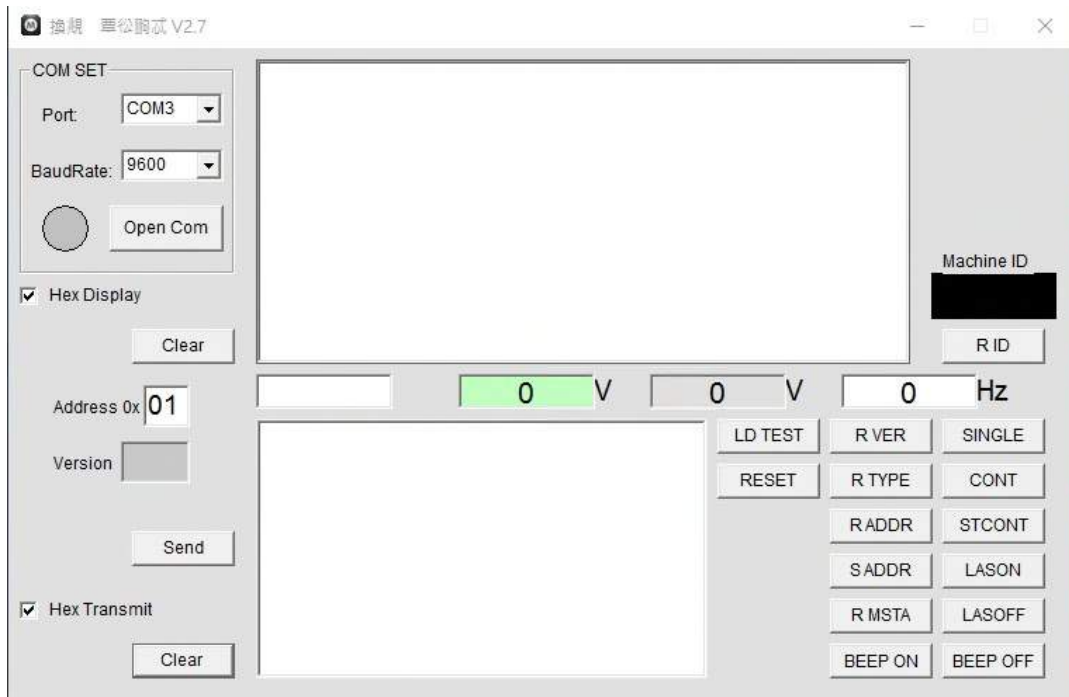




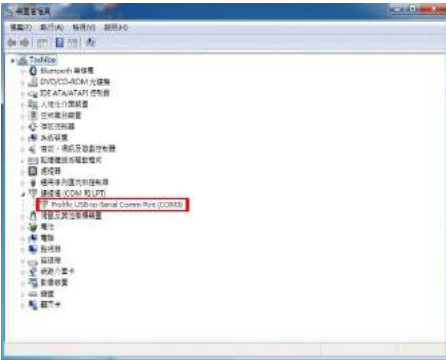





Fig. 2

System Installation Setup (Bluetooth)

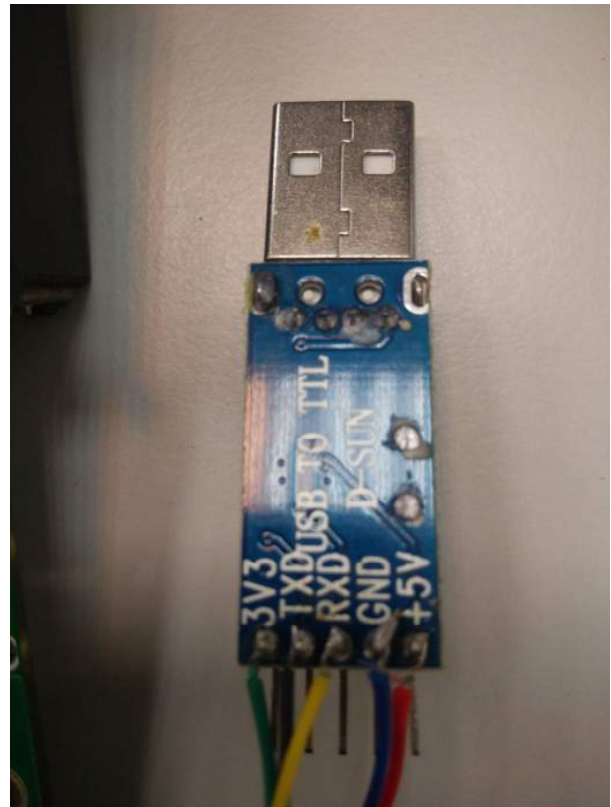
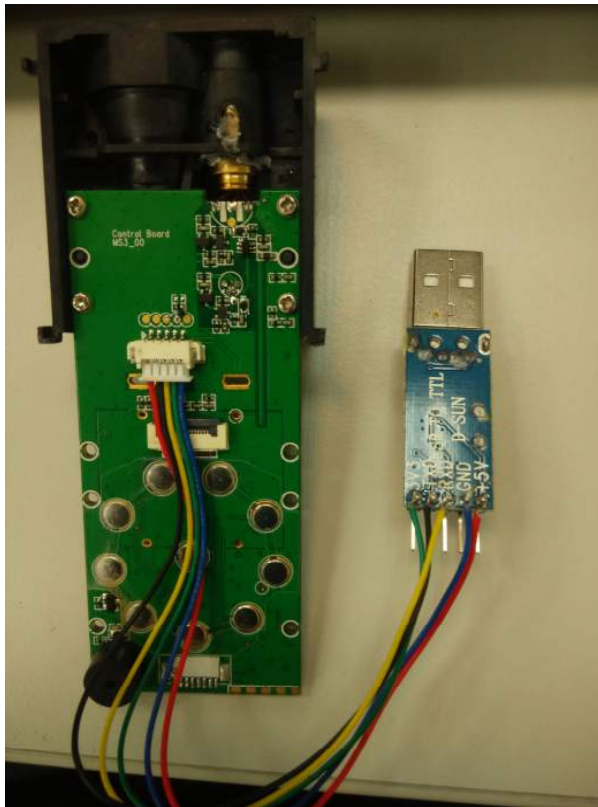
<p>Prepare:</p>	
<p>Step 1.</p>	<p>Install PL-2303 Driver Installer for Bluetooth convert board</p> <ul style="list-style-type: none">  PL-2303 Vista&Win7 Driver Installer.exe  PL-2303 WinXP Driver Installer.exe  PL-2303 Win10 Driver Installer.exe <p>Note: Customer might need to provide OS (operation system) version if error occurs, as we will need to check if RS232 data transmission SW available.</p>
<p>Step 2.</p>	<p>Create USB connection to OS.</p> <p>Insert Bluetooth convert to USB board to PC USB port, system will automatically shows new device found;</p> <p>Select automatic installation</p> <p>Please check COM PORT number once successfully installed.</p> <div style="display: flex; justify-content: space-around;">   </div>
<p>Step 4.</p>	<p>Software verification</p> <p>Install the software for testing communication then initiate the software</p> <p><input checked="" type="checkbox"/>  SENSOR DEBUG V2.7 setup.exe</p> <div style="text-align: right;">  </div>
<p>Step 5.</p>	<p>Communication initiate</p> <p>Set Com port to the right connection (port number fund in Step 2) and baud rate to 9600.</p> <p>Click "Open Com" and the connection is initiated if the gray circle turns RED. (Fig. 2)</p>

Basic commands

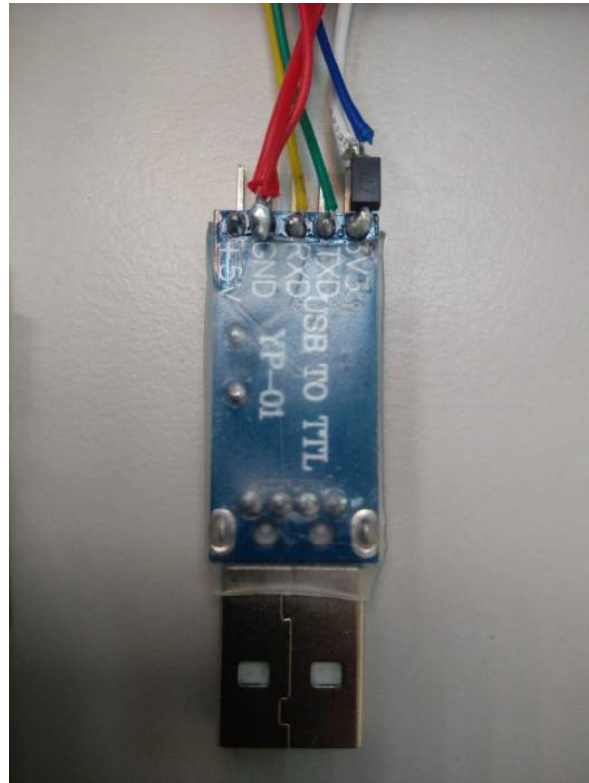
●"R VER"- Read Software version	●"SINGLE"- Single measurement
●"R Type"- Read Device Type	●"CONT"- Continuous measuring
●"R ADDR"- Read Device Address	●"STCOUNT"-Stop continuous measurement
●"R SADDR"- Set Device address	●"LASON"- Laser ON
●"R MSTA"- Read System status	●"LASOFF"- Laser OFF
●"BEEP ON"- Turn on buzzer	●"BEEP OFF"- Turn off buzzer

Notice

1. User should always remember to turn OFF the power of the LDK when the measurement is complete, as keeping the power on might reduce the life-time of the Laser and of the light receiving element inside the LDK.
2. Resistors of a few hundred Ohm are preferentially added between the pins UART Rx, UART Tx and the user's MCU in order to limit the voltage discrepancy between the two systems that would lead to current loss.
3. Please make sure the USB output current is sufficient for LDK Start Current.
4. USB TTL Tool images:



RS232 cable for Model 1(RS232)



RS232 cable for Model 2(RS232)



BT cable for Model 2(BT)