4 Viewing measurements

1 Click on **"Start"** on the main screen.

2 Click on **"Open Sample Project"**.

3 Click on **"LabRecon Chip Test"**.
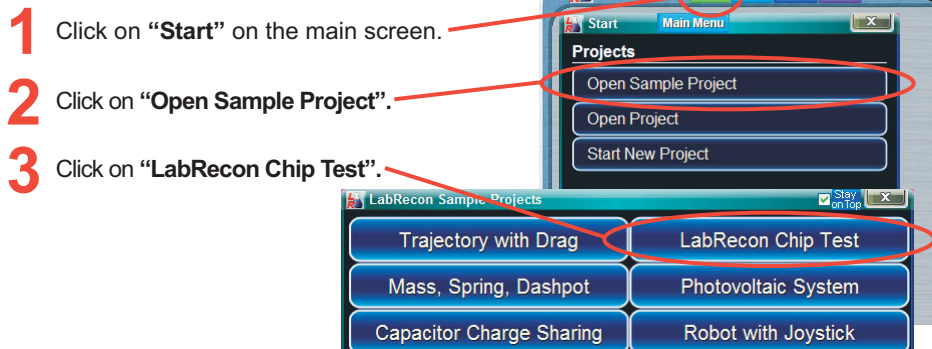

The bottom sample project should open. This project can be used to view measured voltages and excersize outputs. The **"LabRecon - Chip Datasheet"** document covers setting chip configurations for changing pin functions.

"View LabRecon Chip Pins" can be clicked on from the **"Start"** menu to view chip parameters. **"Set"** buttons can be clicked to configure other measurements using the **Measurement Wizard** or manually.

The document, **"LabRecon - Chip Datasheet (rev2.0).pdf"**, and others at **www.LabRecon.com/Documents.html** cover details of using the LabRecon chip and software. Videos are also available at **www.LabRecon.com/Videos.html**.

The "Ai1" and "Ai2" displays show the light (Lux) and temperature (F) measurements. The Analog Input (Ai) values of unconnected pins will fluctuate.
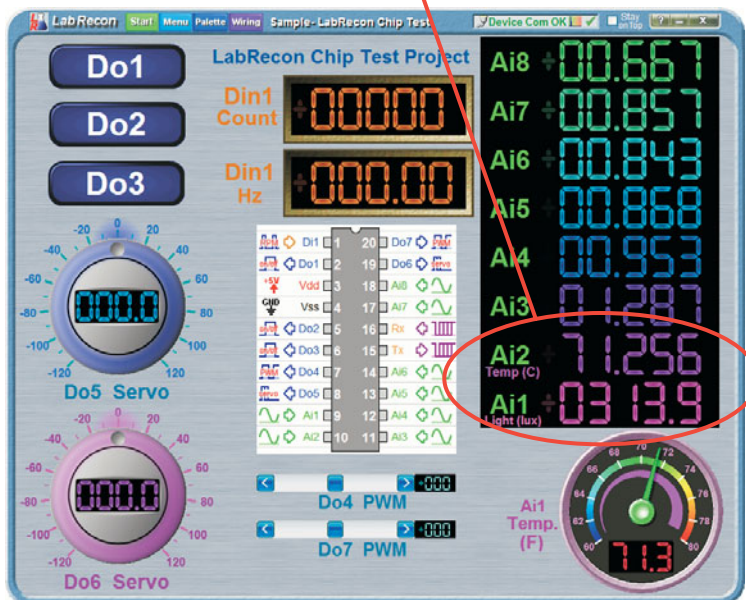

This is a quick guide for getting started with the LabRecon chip. Additional documentation and tutorial videos are available at
   www.LabRecon.com/Documents.html and
   www.LabRecon.com/Videos.html

1 Making electrical connections

The below photo shows the use of a FTDI USB to Serial Cable to provide both 5V power and a data connection with a Windows PC.

The two capacitors at the chip's "Gnd" and "5V" pins help reduce measurement noise. A photocell, thermistor and two 10K resistors are added to measure light and temperature.
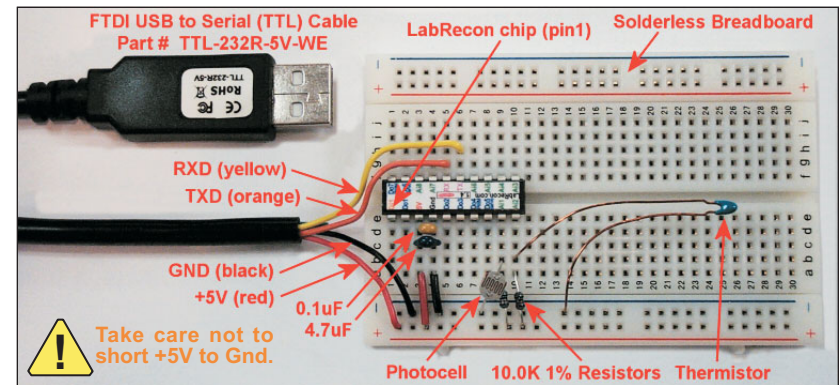
Alternative connection methods are discussed in the document **"LabRecon - Getting Started with Measurements"**.

"RXD" and **"TXD"** are designations for the FTDI cable. **"RXD"** connects to the chip's **"TX"** pin and **"TXD"** connects to the chip's **"RX"** pin.

The capacitors included with the LabRecon chip are ceramic and have no polarity.
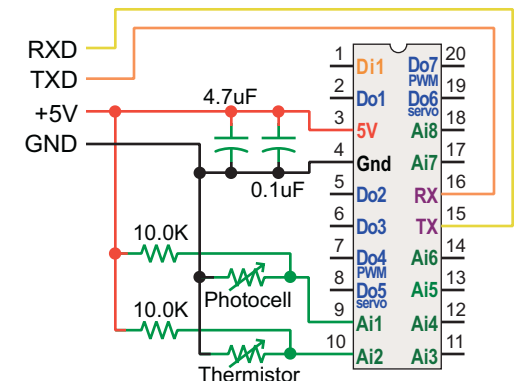
Schematic for photocell and thermistor connections

2 Installing drivers

⚠️ This page can be skipped if the USB device has previously been used on this PC and thus the drivers were already installed.

The manufacturer of the USB to Serial adapter or cable should provide a **Driver File** and instructions for the **Driver Installation Process**, which may be packaged with the device or available from their web site. In some cases, the **"Found Hardware Wizard"**, which opens automatically when a new USB device is connected, will be able to automatically find and install a driver.

Plug in the USB cable. The **"Found Hardware Wizard"**, should open automatically when a new USB device is connected. It may be able to automatically find and install a driver, but the manufacturer's instructions may suggest using other methods.

The **"Found Hardware Wizard"** should indicate if the device was installed successfully and is "Ready to Use". It should appear in the **"COM Port"** list as discussed on the **"Opening Software Connection to the LabRecon Chip or Hardware"** page in the **"LabRecon - Getting Started with Measurements"** document.

If the Driver Installation was **Not** successful, the instructions may suggest using the **Windows Device Manager** to help troubleshoot the installation.

The **Windows Device Manager** can be accessed by various means, but for convenience it can be opened from LabRecon as shown below.

Click on **"Start"** on the main screen.

Click on **"Connect to LabRecon Chip/Hardware"**.

Click on **"Open Device Manager"** to open the Windows Device Manager.
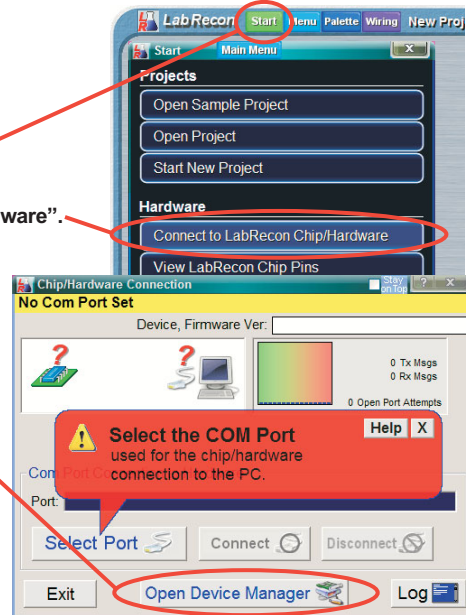
3 Connecting to the chip

1 Download and save **LabRecon.exe** from **www.LabRecon.com/Downloads.html** The file is only 2MB and downloads in a few seconds. The software needs no installation and runs as is.

2 Insure the LabRecon Chip is powered and connected to the computer.

3 Click on **"Start"** on the main screen.

4 Click on **"Connect to LabRecon Chip/Hardware"**.

5 Click on **"Select Port"**.

6 Click on the **COM port** used for the LabRecon **serial** connection.

(If using Bluetooth see notes below.)

Messages should indicate if the connection was successful with a "Chip/Hardware was Found" message.

7 Click on the top **"X"** to exit.

⚠️ If the connection fails see the **"Connection Troubleshooting"** page in the **"LabRecon - Getting Started with Measurements"** document or click the top **"?"** or **"Help"** on any message.

Bluetooth Notes:

If using Bluetooth, the hardware must be "paired" with the PC's Bluetooth adapter using the Bluetooth software provided by the manufacturer of the Bluetooth device or the PC. A default password of 0000 may be requested.

There may be multiple COM ports. The Bluetooth software should indicate the COM Port used for the present connection.