

Accessing SBHS through Scilab on Windows

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Objectives

We will learn

- ▶ To set up serial communication between Scilab and SBHS



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- ▶ To perform Step Test experiment



System Requirements

For this tutorial, I am using

- ▶ **Windows-7 OS**



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- ▶ Scilab 5.3.3



System Requirements...

- ▶ You may download Scilab from:
www.scilab.org



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- ▶ You may download Scilab from:
www.scilab.org
- ▶ To install Scilab, watch the Scilab spoken tutorial series on
<http://spoken-tutorial.org>



Prerequisites

Watch the following tutorials

1. Introduction to Xcos
2. Connecting SBHS to computer

The relevant tutorials for these, are available in this series, on

<http://spoken-tutorial.org>



COM Port identification

1. For RS232 the port number will be COM1
2. For USB it will be greater than COM1 i.e. COM2, COM3... etc
3. Note down the appropriate COM number



COM Port setting

1. A two digit COM port number cannot be used
2. This is because scilab serial toolbox works only with single digit COM port number
3. Change the COM port number if it is two digit



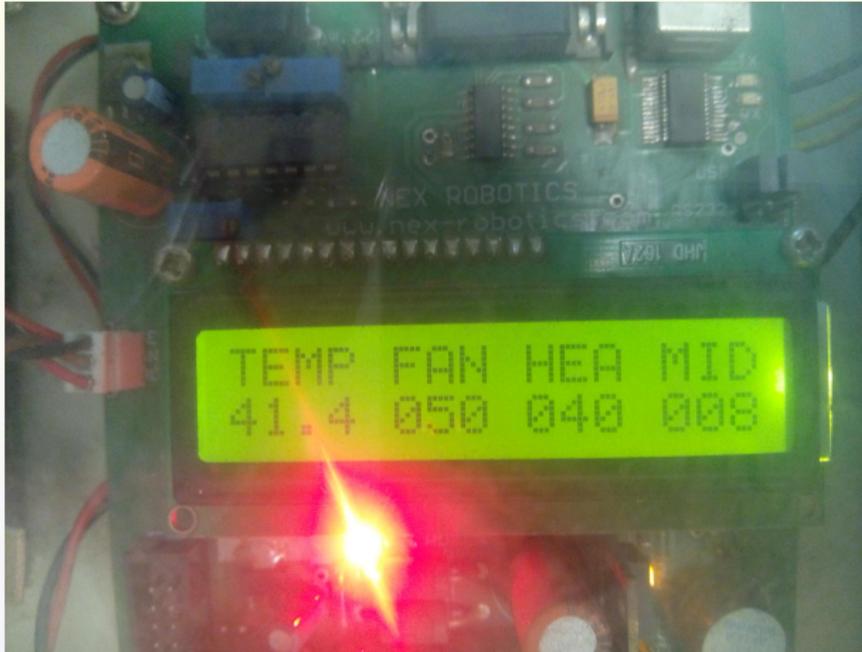
TCL/TK Error

In case a TCL/TK related error is displayed,

1. Reconnect the USB cable connected to the SBHS and execute the file again.
2. Check once if the COM port number has changed.
3. If it still doesn't work, restart Scilab and repeat the process.



SBHS Display



Notes

1. Values of Fan, Heater and Temperature should be same as shown on the SBHS display

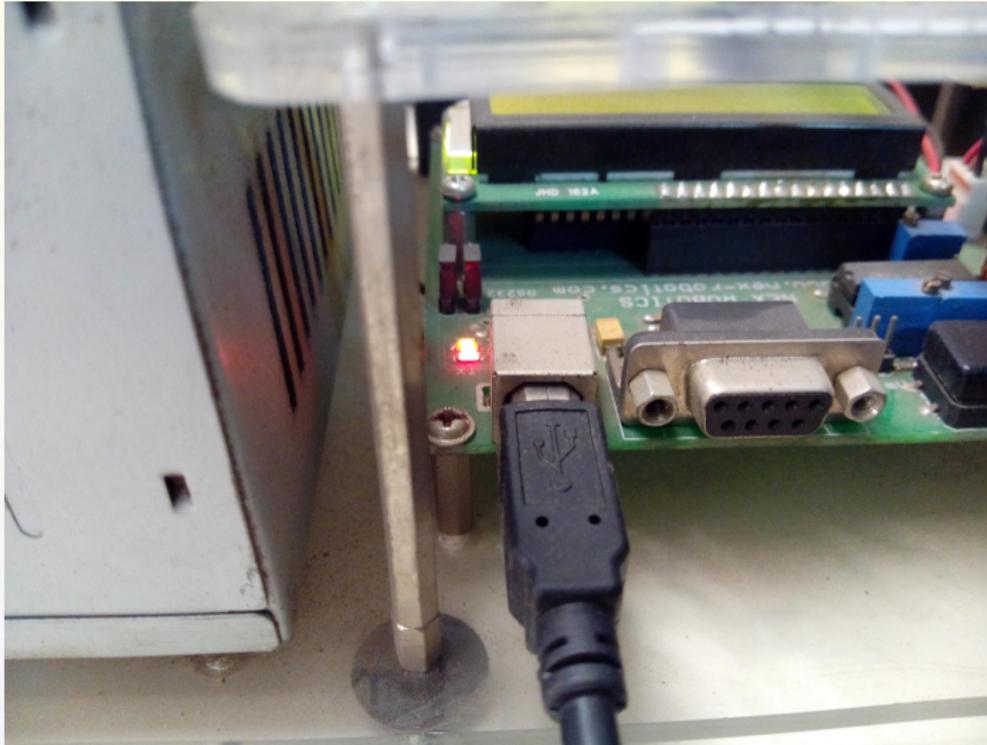


Notes

1. Values of Fan, Heater and Temperature should be same as shown on the SBHS display
2. If not then Scilab is not communicating with SBHS



SBHS LEDs



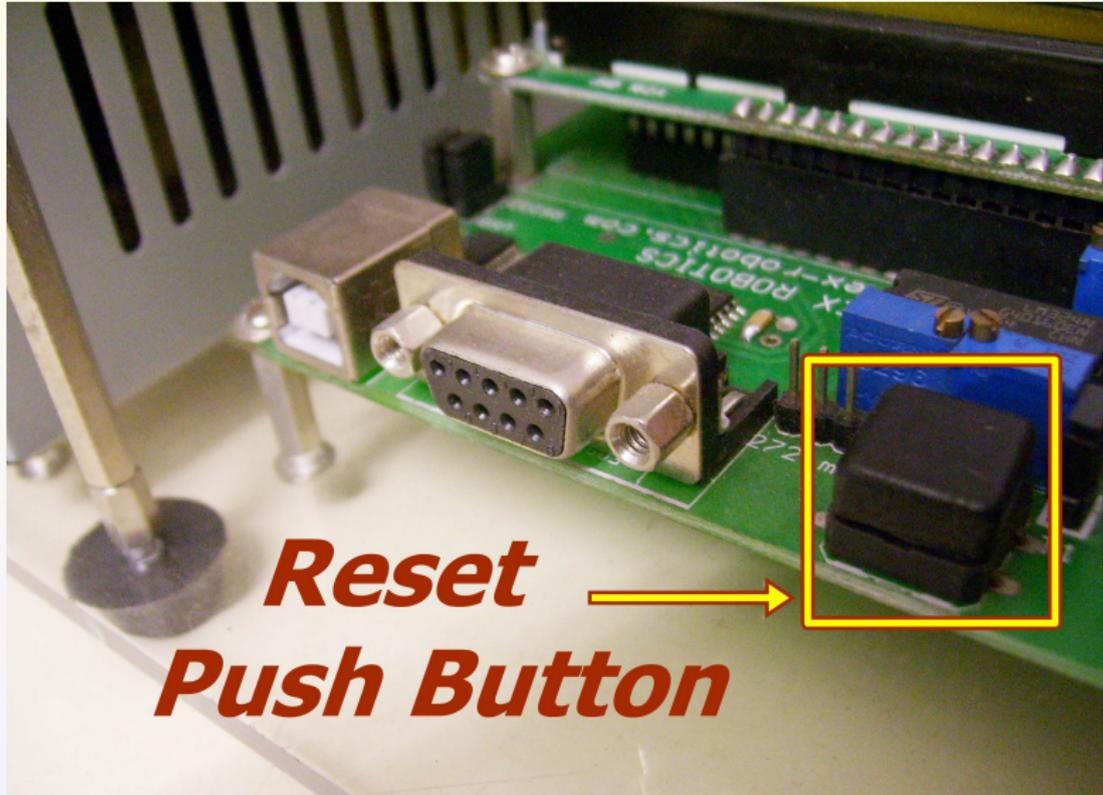
1. Recommended only after firm understanding of the process is gained.



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2. Port number provided in `ser_init.sce` file must be correct.



Resetting SBHS



***Reset
Push Button***

Summary

In this tutorial, we have learnt how to,

- ▶ Set up serial communication between Scilab and SBHS**
- ▶ Perform Step Test experiment**



About the Spoken Tutorial Project

- ▶ Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test

For more details, write to

contact@spoken-tutorial.org



Acknowledgements

- ▶ **Spoken Tutorial Project is a part of the Talk to a Teacher project**
- ▶ **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- ▶ **More information on this Mission is available at:**

<http://spoken-tutorial.org/NMEICT-Intro>

