Instruction Sheet for OpenPLC Version1 with LDmicro Spoken Tutorial Team, IIT Bombay



1 Online / Offline content

- The online content of Spoken Tutorials can be accessed from : https://spoken-tutorial.org/tutorial-search/
- 2. You can also download the Spoken Tutorials for offline learning from : https://spoken-tutorial.org/cdcontent/
- 3. From this link download the FOSS categories in the language you wish to learn.
- 4. The Spoken Tutorial content will be downloaded as a zip file on your machine.
- 5. Extract the contents of the zip file & access them.
- 6. Read the README.txt file and do as instructed.

2 The procedure to practise

- 1. You have been given a set of spoken tutorials and files.
- 2. You will typically do one tutorial at a time.
- 3. You may listen to a spoken tutorial and practise by reproducing all the steps shown in the video side-by-side.
- 4. If you find it difficult to do the above, you may consider listening to the whole tutorial once and then practise during the second hearing.

3 Side-by-side learning video (Only for offline content)

- 1. Go to the folder name spoken on your machine.
- 2. Locate index.html file.
- 3. Open this file with either Firefox or Chrome web browser.
- 4. The Side-by-Side learning video will appear. This video will explain how to learn from the spoken tutorials.
- 5. Click on the Play button to play the video.
- 6. Note all the steps explained therein.

4 OpenPLC Version1 with LDmicro

- Click on "Select FOSS" or "All FOSS Categories" drop-down and choose " OpenPLC Version1 with LDmicro".
- 2. Click on "Select Language" or "All Languages" drop-down and choose the language "English".
- 3. Click on "Submit" button.
- 4. You will see a list of tutorials based on your selection.
- 5. Start with the first tutorial in the displayed list.

5 First tutorial: Overview of OpenPLC Version1 with LDmicro

- 1. Locate the topic "OpenPLC Version1 with LDmicro" and click on it.
- 2. To view the tutorial, click on the Play icon which is located in the player.
- 3. What you can expect in this series and the content available in various tutorials in this series are covered in this tutorial

6 Second tutorial: Installation of LDmicro on Linux

- 1. Locate the topic "Installation of LDmicro on Linux" and click on it.
- 2. To view the tutorial, click on the Play icon which is located in the player.
- How to install LDmicro, AVRDUDE and Drivers for USBasp programmerin Linux OS is covered in this tutorial.

7 Third tutorial: Installation of LDmicro on Windows

- 1. Locate the topic "Installation of LDmicro on Windows" and click on it.
- 2. To view the tutorial, click on the Play icon which is located in the player.
- 3. How to install LDmicro, AVRDUDE and Drivers for USBasp programmer in Windows OS is covered in this tutorial.

8 Fourth tutorial: Introduction to LDmicro

- 1. Locate the topic "Introduction to LDmicro" and click on it.
- 2. From this tutorial onwards, all the topics are common for Linux and Windows learners.
- 3. Follow all the instructions properly while practising.

8.1 Instructions to practise

- (a) Create a folder on the "Desktop" with your "Name-RollNo-Component". (Eg. "asha-04-openplc").
- (b) Give a unique name to the files you save, so as to recognize it next time.(Eg. "openplc-1-asha").
- (c) Remember to save all your work in your folder.
- (d) This will ensure that your files don't get over-written by someone else.
- (e) Save your work from time to time, instead of saving it at the end of the task.

8.2 Common instructions for Assignments

- (a) Attempt the Assignments as instructed in the tutorial.
- (b) Save your work in your folder.

8.3 Common instructions to use Code files

- (a) Click on the link "Code files" located below the player and save it in your folder.
- (b) Extract the downloaded zip file.
- (c) You will see all the code/source files used in the particular tutorial.
- (d) The .ld file can be accessed by opening them in LDmicro using Open option under File menu
- (e) The ladder diagram can then be compiled to generate a .hex file.
- (f) Or you can download the .hex file from Code files which can be uploaded to the Mainboard directly.
- (g) It is not recommended to download the Code files without understanding the working.
- (h) Follow all the steps as shown in each tutorial and understand the working of each instruction.
- 4. Play-pause-practise the whole tutorial.
- 5. Once the tutorial is complete, choose the next tutorial from the playlist which is located on the right side or below the player.
- 6. Follow all the above instructions, till you complete all the tutorials in the series.