

CTD Counter

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

Harsha Priyanka

IIT Bombay

25 August 2020



Learning Objectives



Learning Objectives

- Count down (CTD) counter



System Requirements



System Requirements

- **Ubuntu Linux 18.04 OS**



System Requirements

- **Ubuntu Linux 18.04 OS**
- **LDmicro**



System Requirements

- **Ubuntu Linux 18.04 OS**
- **LDmicro**
- **OpenPLC version 1 Mainboard**



System Requirements

- **Ubuntu Linux 18.04 OS**
- **LDmicro**
- **OpenPLC version 1 Mainboard**
- **24V, 2A SMPS**



System Requirements

- **Ubuntu Linux 18.04 OS**
- **LDmicro**
- **OpenPLC version 1 Mainboard**
- **24V, 2A SMPS**
- **USBasp programmer**



System Requirements

- **Ubuntu Linux 18.04 OS**
- **LDmicro**
- **OpenPLC version 1 Mainboard**
- **24V, 2A SMPS**
- **USBasp programmer**
- **Traffic Light module**



System Requirements

- **Ubuntu Linux 18.04 OS**
- **LDmicro**
- **OpenPLC version 1 Mainboard**
- **24V, 2A SMPS**
- **USBasp programmer**
- **Traffic Light module**
- **Switchboard module**



Pre-requisites



Pre-requisites

- **Working of CTU and Compare instructions**



Pre-requisites

- Working of CTU and Compare instructions
- If not, please refer to the relevant tutorials in this series from <https://spoken-tutorial.org>



Prerequisites - Hardware setup



Where can an up-down counter be used?



Where can an up-down counter be used?

- The up-down counter can be used when we need to count the finished products



Where can an up-down counter be used?

- The up-down counter can be used when we need to count the finished products
- CTU will increment the count value when a product is finished



Where can an up-down counter be used?

- The up-down counter can be used when we need to count the finished products
- CTU will increment the count value when a product is finished
- CTD will decrement the count of products that fail the quality test



Summary

- **Count down (CTD) counter**



About the Spoken Tutorial Project

- Watch the video available at https://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, please write to contact@spoken-tutorial.org



Forum questions

- Questions in THIS Spoken Tutorial?
- Visit <https://forums.spoken-tutorial.org/>
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer

You will have to register to ask questions



Forum for specific questions

- Questions not related to the Spoken Tutorial?
- Do you have general / technical questions on the Software?
- Please visit the FOSSEE Forum
<https://forums.fossee.in/>
- Choose the Software and post your question



Acknowledgements

Spoken Tutorial project is supported by

- **National Mission on Education through ICT (NMEICT)**
- **Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching**

Initiatives of MHRD, Government of India



THANK YOU!

For more Information, visit our website
<https://fossee.in/>

