

CTU Counter

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives



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- Count up (CTU) counter



System Requirements



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- **Ubuntu Linux 18.04 OS**



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- **LDmicro**



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- **USBasp programmer**
- **Traffic Light module**
- **Switchboard module**



Pre-requisites



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- **Working of Contact, Coil and RESET instructions**



Pre-requisites

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



Prerequisites - Hardware setup



Counters

3 types of counters



Counters

3 types of counters

① Count up (CTU)



Counters

3 types of counters

- 1 Count up (CTU)
- 2 Count down (CTD)



Counters

3 types of counters

- 1 Count up (CTU)
- 2 Count down (CTD)
- 3 Count circular (CTC)



Resetting CTU



Resetting CTU

CTU counters can be reset using **RES** instruction



Summary

- **Count up (CTU) counter**



Assignment

- 1 Draw a ladder diagram to turn on an LED

Condition: When the switch is pressed for more than or equal to 5 times



Assignment (cont.)

- 2 Include logic to reset the LED
Hint: Use another Contact and RES instruction



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



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THANK YOU!

For more Information, visit our website
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