

SET and RESET Coils

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

Harsha Priyanka

IIT Bombay

21 July 2020



Learning Objectives



Learning Objectives

- SET-only Coil



Learning Objectives

- SET-only Coil
- RESET-only Coil



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 Mainboard**



System Requirements

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



System Requirements

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



System Requirements

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



System Requirements

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



Pre-requisites



Pre-requisites

- Working of Normal Contact and Normal Coil



Pre-requisites

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



Prerequisites - Hardware setup



How to turn off the LED?



How to turn off the LED?

- By turning off the power supply



How to turn off the LED?

- By turning off the power supply
- By resetting the program in the microcontroller



How to turn off the LED?

- By turning off the power supply
- By resetting the program in the microcontroller
- By using a RESET-only coil



Summary

- SET-only Coil
- RESET-only Coil



Assignment

Implement reset-dominant **SR flip-flop**

Truth Table:

S	R	Output
0	0	Memory
0	1	0
1	0	1
1	1	0



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/>

