

16-5-2018

Learn Electronics

Learn to design electronic circuits.

①

ETIM ✓

IDW ✓

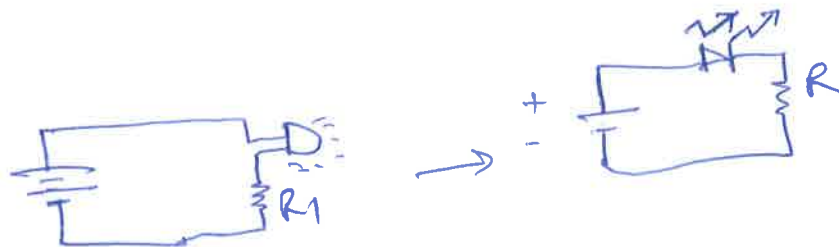
Topic ① Learn about how electrical circuit in a normal home ~~work~~ work.

- Simple Lamp circuit (AC)/(DC)
- Fan circuit (AC)
- Torch light (~~AC~~ DC)
- Main circuit/main switch of home (AC/DC) electrical connection
- close loop of any circuit. (AC/DC)
- compare with water supply line
- introduce resistor/load, current & voltage.

Steps

Draw a circuit and ask as many questions as possible.

- Note answers from students (can answer or not)
- Rate each student before continuing.



## Topic ② Voltage, Current & Resistance → formulas. practice

- ① Learn about  $V$ ,  $I$ ,  $R$
- ② Formula
- ③ Practice few ~~sets~~ series & parallel ckt.

## Topic ③ Learn to use breadboard. Start making circuit. Start swimming to learn swimming. Learn about how to use multimeter.

## Topic ④ Learn, Resistor, LED, capacitor, transistor, diode, Get good learning material/books. You should to be able to understand when to use which element & how & where.

## Topic ⑤ Use transistor as a switch, practice. Use it. Make things — control things — motor, buzzer, light sense temperature, light etc.

## Topic ⑥ Learn how to solder, soldering and materials. Safety — while doing so.

## Topic ⑦ Learn how Diodes & capacitors behaves in a circuit. practice, make things. build thing more completely.

## Topic ⑧ Build circuits using IC / integrated circuits. build-projects: use ~~an~~ memory, ram, ~~and~~ and others.

## Topic ⑨ Design your own circuit board. Until now you have only used to ~~breadboard~~ ready made solution. now solve new problem and build your project.

## Topic ⑩ Learn to use MCU / microcontroller unit in project. Learn to program. Commission a project.