

BASICS OF ELECTRONICS

5 to 10 days – 3hr/day

Chapter 1: Electronics

- introduction
- History of electronics
- IC technologies

Chapter 2: Building Circuits

- What Is A Breadboard?
- How to Connect Components and Wire
- Introduction to Schematic Diagrams
- The Schematic Symbols

Chapter 3: electricals

- Voltage, Current and Resistance
- Series and Parallel Circuits
- Motors and generator
- Transformer
- instrumentation

Chapter 4: analog electronics

- Passive components
- RLC circuit
- Circuit analysis
- Active components
- Rectifiers
- filters
- Transducer
- Thyristers
- amplifiers
- The Integrated Circuit
- What is a Datasheet?

Chapter 5: digital electronics

- Logic-gates
- Flip-flop
- Minimization techniques
- Encoder and decoder
- ADC
- DAC

Chapter 6: IC's and communication system

- Programmable IC's
- Non-programmable IC's
- Wired communication
- Wireless communication

Chapter 7: How to Solder

- The Soldering Iron
- Soldering Step-by-Step
- De-soldering
- Boards for Soldering

Chapter 8: projects

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