

E-World Class: Electricity, Electronics and Circuits

Using KID INVENTOR Electronics Kit, Learning as Kids Playing! www.kidinventor.com

Basic E-World Class (Grade 1-3)

1. Electricity Power
Project: DC Power, Basics Light Circuit.
2. Conductor, Non-Conductor, Semi-Conductor
Project: Conductor Tester. Coin, Plastic, Silicon Wafer
3. Relay and Magnetic Field
Project: Magnet, Iron, Reed Relay Circuit
4. Voltage and Current
Project: Multi-Sets Battery Circuit, Simple Equation
5. Resistor
Project: Current Restriction by Resistors
6. Motor
Project: Fan Circuit, Helicopter
7. Circuit in Parallel and Circuit in Series
Project: Circuit in Parallel and in Series
8. Diode
Project: Diode/LED Circuit
9. IC Chips, Speaker
Project: Music Doorbell
10. Light Sensor, Photoresistor
Auto Streetlight: Light Sensor Circuit
11. Water Sensor
Project: Rain Detector, Leak Detector
12. Sound and Vibration Sensor
Project: Simple Sensor Circuits
13. Sensor Applications
Project: Music Birthday Card, LED Mail Box Indecator
14. Alarm Circuit
Project: Alarm Chip Circuit, Burglar Alarms
15. Flash Light Circuit
Project: Chip-LED- Light, Alarm Flash
16. Control Circuit
Project: Contrl Circuit by Movement Sense and Vibration Sense
17. Creative Project
Final Project

Advanced E-World Class (Grade 4-6)

1. Music/Sound Mixer Circuit
Project: Music Alarm Circuit
2. Logic Basic 1:
Project: AND Gate and OR Gate
3. Logic Basic 2:
Project: NOT, NAND and NOR Gates
4. Transistor and Amplify Principle
Project: NPN and PNP Transistor Circuit
5. Capacitor Principle
Project: Charge to Flash Principle
6. Sound and Capacitor-Resistor Circuit
Project: Multiple Tones Generator, Horn of Tantanico
7. Transistor- Capacitor Circuit
Project: Electronic Metronome
8. Sensor Signal Amplification
Project: Amusing Lie Detector
9. Capacitor Delay
Project: Auto-off Garage Light, Delay Fan.
10. Microphone
Project: Simple Sound Amplification, Karaoke Indicator
11. Amplifying Circuit Application
Project: High Volume Oscillator, Movement-Sensitive Burglar Alarm , Adjustable Timing Lamp
12. Antena and Atena Coil, Radio Signal in Air
Project: My Music Radio Station
13. Remote Control
Project: Intruder Radio Alarm, Remote Car Alarm
14. Variable Resistor Application
Project: Adjustable Telegram Key, Blow-to-Dim Lamp
15. Simple Radio
Project: Transistor AM Radio
16. Amplifying IC and IC Radio
Projecct: Volume Adjustable Super AM Radio
17. Creative Project
Final Project, Using extention wires.