Specifications -
Module One:

a. Chapter 1 Photo Sensor Circuits
b. Experiment 1: CdS Sensor Circuit
c. Operating Wave length: 500 nm - 580 nm
d. Experiment 2: Photo Diode circuit
e. Operating Wave length: 76nm - 1000 nm
f. Experiment 3: Phototransistor Circuit
g. Operating Wave length: 430nm - 670 nm
h. Experiment 4: Photo Interrupter Circuit
Operating Wave length: 940 nm

Module Two:

j. Chapter 2 Switch Sensor circuit
k. Experiment 1: Tilt Switch Circuit
l. Conduction Angel: 55-125 deg.
m. SW Normal State: ON
n. Operating State: LED Indicator
o. Experiment 2: Micro Switch Circuit
p. SW Normal State: OFF
q. Operating State: LED Indicator
r. Experiment 3: Touch Switch Circuit
s. SW Normal State: OFF
t. Operating State: LED Indicator
u. Experiment 4: Reed Switch Circuit
v. SW Normal State: OFF
w. Operating State: LED Indicator
x. Experiment 5: Vibration Switch Circuit
y. SW Normal State: ON
z. Operating State: LED Indicator

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

Module Three:

aa. Chapter 3 Temperature Sensor circuit
bb. Experiment 1: MCP9701 Temperature Sensor Circuit
cc. Measurement Range: - 40°C to +125°C
dd. Accuracy (max.): ± 4°C @ (0°C to +70°C)
ee. Experiment 2: LM335 Temperature Sensor Circuit
ff. Measurement Range: - 40°C to +100°C
gg. Accuracy (max.): ± 2°C @ 25°C
hh. Experiment 3: TC620 Temperature Sensor Circuit
ii. Experiment4: TC74 Temperature Sensor Circuit
jj. Measurement Range: - 40°C to +125°C
kk. Accuracy (max.): ± 3°C @ (0°C to +125°C)

Module Four:

ll. Chapter 4 Humidity Sensor Circuits
mm. Experiment 1: H25K5A Humidity Sensor Circuit
nn. Measurement Range: 20% - 90% RH
oo. Accuracy (max.): ±5% RH@25°C
pp. Experiment 2: Sl7007 Humidity Sensor Circuit
qq. Measurement Range: 0 - 100% RH
rr. Accuracy (max.): ±5% RH@ (0 - 80% RH)
ss. Experiment 3: RH818 Humidity Sensor Circuit
tt. Measurement Range: 0 - 100% RH
uu. Accuracy (max.): ±1% RH@ (10% - 90% RH)
vv. Experiment 4: DHT11 Humidity Sensor Circuit
ww. Measurement Range: 20% - 90% RH
xx. Accuracy (max.): ±5% RH@ 25°C

Module Five:

yy. Chapter 5 Infrared Sensor Circuits
zz. Experiment 1: RE200B Passive Infrared Sensor Circuit
aaa. Frequency Response: 0.3 Hz - 3 Hz/±10 dB
bbb. Field of View: 21 ° - 159° (X axis), 27.5° - 152.5° (Y axis)
ccc. Experiment 2: OTP-628 Thermopile Infrared Sensor Circuit
ddd. Thermopile Voltage: 2.6±0.8 mV
eee. Field of View: 45 ° - 135 ° (X axis), 45° - 135° (Y axis)
fff. Experiment 3: TS-S2NMB Thermopile Infrared Sensor Circuit
ggg. Thermopile Voltage: 2.43±0.6 mV
hhh. Field of View: 45 ° - 135° (X axis), 45° - 135° (Y axis)

Module Six:

iii. Chapter 6 Gas Sensor Circuits
jjj. Experiment 1: Smoke Sensor Circuit
kkk. Sensing Body Resistance: 1 kΩ - 10 kΩ (1000 ppm Isobutane)
lll. Operating Humidity: <95% RH
mmm. Operating Oxygen Concentration (min.): >2%
nnn. Experiment 2: Nature Gas Sensor Circuit
ooo. Sensing Body Resistance: 2 kΩ - 20 kΩ (5000 ppm Methane)
ppp. Operating Humidity: <95% RH
qqq. Operating Oxygen Concentration (min.): > 2%
rrr. Experiment 3: Alcohol Sensor Circuit
sss. Sensing Body Resistance: 100.kΩ - 500 kΩ (100 ppm Alcohol)

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ttt. Operating Humidity: <95% RH
uuu. Operating Oxygen Concentration (min.): > 2%
vvv. Experiment 4: Carbon Monoxide Sensor Circuit
www. Sensing Body Resistance: 2 kΩ - 20 kΩ (100 ppm Carbon Monoxide)
xxx. Operating Humidity: <95% RH
yyy. Operating Oxygen Concentration (min.): > 2%

Module Seven:

zzz. Chapter 7 Ultrasonic Sensor Circuits
aaaa. Experiment 1: Sound Generator
bbbb. Frequency: 850±100 Hz Arnd 1700±150 Hz
cccc. Experiment 2: Ultrasonic Transmitter
dddd. Operating Frequency: 40 kHz
eeee. Operating Temperature: -20°C ~ +70°C
ffff. Operating Humidity: <90% RH@40°C
gggg. Experiment 3: Ultrasonic Receiver
hhhh. Operating Frequency: 40 KHz
iiii. Operating Temperature: -20°C ~ +70°C
jjjj. Operating Humidity: <90% RH@40°C

Module Eight:

kkkk. Chapter 8 Color Sensor Circuits
llll. Experiment 1: Red Sensor Circuit
mmmm. Operating Wave length: 590 nm ~ 720 nm (ƛp: 660 nm)
nnnn. Experiment 2: Green Sensor Circuit
oooo. Operating Wave length: 480 nm ~ 660 nm (ƛp: 540 nm)
pppp. Experiment 3: Blue Sensor Circuit
qqqq. Operating Wave length: 400 nm ~ 540 nm (ƛp: 460 nm)
Function Generator and DC Power Supply
rrrr. Waveforms: Sine, Triangle, Square, TTL Pulse
ssss. Amplitude: >10 Vpp
tttt. Impedance: 50Ω ±10%
uuuu. Duty Control: 30% ~ 60%
vvvv. Display: 6-Digit LED Display

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