



Integrated Manufacturing Systems Troubleshooting (IMST) Level 1

Attachment 1-9: Industrial Electricity

LINKS

Note: Red Items reference Wisc-online learning objects

Safely work with electricity and electrical components.

http://www.ibiblio.org/kuphaldt/electricCircuits/DC/DC_3.html

This is an open source textbook chapter

Match a list of safety practices to the electrical hazards they prevent.

http://www.ibiblio.org/kuphaldt/electricCircuits/DC/DC_3.html

This is an open source textbook chapter

Match the following list of electrical terms to their proper definition:

- Volt

<http://www.electrical4u.com/voltage-or-electric-potential-difference/>

An open source document on voltage

- Ampere

- Ohm

- Conductance

<http://www.electrical4u.com/electrical-conductivity-of-metal-semiconductor-and-insulator/>

An open source document on conductance

- Resistance

Abbreviations Representing Electrical Quantities dce1302

<http://www.electrical4u.com/electrical-resistance-and-laws-of-resistance/>

An open source document on resistance

- Insulator

- Resistor

Conductors, Insulators and Resistors dce15911

<http://www.electrical4u.com/types-of-resistor-carbon-composition-and-wire-wound-resistor/>

- Open

- Short

Electrical Opens and Shorts amt2404

- Coulomb

<http://www.electrical4u.com/coulombs-law/>

An open source document on coulombs





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<http://iamechatronics.com/notes/general-engineering/205-dc-electrical-voltage->

This is a short handout

<http://www.allaboutcircuits.com/video-lectures/electrical-quantities-a/>

This link is a video

http://www.ibiblio.org/kuphaldt/electricCircuits/DC/DC_1.html

This is an open source textbook chapter

Match a list of fuses and circuit breakers to their proper descriptions.

<http://www.allaboutcircuits.com/video-lectures/electronic-components-a/>

This link is a video

Use a continuity checker and an ohmmeter to verify the normally open and normally closed set of contacts on a switch.

Testing an On/Off Switch dce1102

Single Pole Toggle Switch dce7604

http://www.ibiblio.org/kuphaldt/electricCircuits/DC/DC_6.html

This is an open source textbook chapter

Use a voltmeter to determine the state of a switch (open or closed) in a circuit under power. Additionally, predict and verify with an ammeter whether current is flowing.

Testing an On/Off Switch dce1102

Given a switch, a DC relay, DC power source, light bulb, and AC power source, determine the N/O contacts of the relay and construct a circuit where the DC switching circuit controls the AC power to the light bulb.

The Relay dce2502

http://www.electronics-tutorials.ws/io/io_5.html

An open source document

Match a list of the kinds of personal protection equipment to their proper description.

http://www.scme-nm.org/index.php?searchword=PPE&ordering=newest&searchphrase=all&limit=20&option=com_search

An open source tutorial on PPE



**Multi-State
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PRIMARY DEVELOPER: Glenn Wisniewski – Henry Ford College

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Identify the level of current that poses a series life-threatening condition to the human body.

http://www.ibiblio.org/kuphaldt/electricCircuits/DC/DC_3.html

This is an open source textbook chapter

Match a list of terms for transformers to their proper description.

Transformers ace802

<http://www.electrical4u.com/electrical-power-transformer-definition-and-types-of-transformer/>

<http://www.electrical4u.com/what-is-transformer-definition-working-principle-of-transformer/>





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