

Interior Architecture

Ohio University

College of Fine Arts

School of Art+Design

ART 2640, Building Systems of Interior Environments

Fall Semester 2020

Tuesdays & Thursdays 10:30-11:50

Online

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Electrical System Assignment

Due: Thursday, September 10, 10:030 am

This is to be a report that contains photographs, sketches and clear bullet point statements. This report is to present a thorough examination of the electrical system in a residence.

Site: your residence, or the residence of someone you know.

You are to explore the electrical systems components of your selected residence.

- Identify the power/fuel source for the electrical system. (This may require a bit of detective/research work)
- Determine if there is an incoming main electrical line, where the electric meter for the house is located, and where the distribution of power to the house occurs (circuit box/fuse box).

- Identify the total electric power of the house system. (look in the circuit box: each circuit/switch has a number on it: this number is the total amperes that circuit can deliver; add up the total number of amperes on the switches and this is the total electrical power, in amperes, that the house has available to power things like lights, hair dryers, et cetera)
- Identify the total number of circuits and the power capacity (amperes) of each in the system. (as I described above)
- Identify the total number of outlets in the house, room by room. (walk through the house and count them :))
- Determine the total power usage capacity (in watts) of the entire house. (this is what is actually being used in the house: electric appliances such as hair dryers, light bulbs/lamps, computers, tv, et cetera each use a certain, specified amount of watts. Look at a hair dryer and you will see the wattage listed)
- Research the cost of the following components of Electrical Systems: ('google' these to find \$\$\$ that may vary by geographic location, or company)
 - 300 ampere circuit box
 - 20 ampere duplex outlet
 - GFCI grounded outlet
 - Single Wall switch
 - Junction box for ceiling light fixture
 - 14 gauge Romex type wire per foot