

EE / CprE / SE 491 - sdmay18-13

Determining voltage and Wire Continuity

Report 1

1/12 - 1/26

Client: Grace Engineering

Faculty Advisor: Nathan Neihart

Team Members:

Mohamed Almansoori - Report Manager

Aaron Eaton - Chief Engineer

Matt Kelly - Meeting Scribe

Sam Kline - Meeting Facilitator

Chris Williams - Test Engineer

Accomplishments

- Arduino Work - Sam
 - Started writing code for the arduino to measure voltage 0-5V through an analog input
 - Code converts that voltage to the actual voltage value based off the conversion circuit we are using, then lights an LED if voltage is greater than 3V
 - Looked at circuits developed by other team members to understand how they work, specifically looking at how op amps work

Pending Issues

Individual Contributions

Team Member	Contribution	Hours Worked	Total Hours
Mohamed Almansoori			
Aaron Eaton			
Matt Kelly	Looked at how an inductor might be used to find the DC line-to-line voltage.	2	2
Sam Kline	Arduino - voltage	4	4

	measurement code		
Chris Williams	Proposed differential amplifier circuit to measure voltage. Researched in Nilsson Riedel text for mathematical equations relating to three phase power.	6	6

Plans for Coming Week

- Arduino Work, Component Research - Sam
 - Update arduino code based on voltage conversion circuits developed
 - Find components so feasibility of designs can be decided
- Circuit Design Work, Research Equations - Chris
 - Research the best way to classify a three phase system with equations
 - If it still seems like the best option, design the differential amplifier circuit with components that will allow for high voltages

