Present: Mack Hall, Jorian Bruslind, and Zach Bendt

Absent: N/A

ECE 342

1/24/19

Prof. Shuman

Week 3 In-Class Group Meeting Notes

* Each member is ready for the upcoming block checkoff
  + 1st revision PCB partially built to show off blocks
    - Shows voltage regulator (5VDC --> 3.3VDC) working via LEDs
    - Shows relays working via LEDs and audible clicking
    - Shows app/microcontroller working via activating relays over bluetooth
  + Will take place at 12:00 on Friday (1/25/19) with Westley
* Provisional PCB testing is complete
  + 2nd revision has been designed and ordered
    - Includes updates to mitigate faults found in 1st board
      * New relay footprint
      * New USB-B connector
      * New shunt footprint for current sensor
      * Corrected XC60 connection polarity
        + Will switch to XC30 in the future for decreased size
      * Ordered stencil
      * Includes additional designer contact info and easter eggs
    - New revision should arrive this Monday (1/28/19)
      * Once arrived, we have everything we need for a working model
    - The case will now begin finalization to accommodate new PCB
    - Block diagram has been updated to reflect up-to-date system
  + App and microcontroller can now talk together successfully
    - Able to enable/disable relays via bluetooth with a custom android app
  + Current 5A fuse has shown to be unreliable
    - Will not stop device from pulling 5A from wall alone
      * Only tripped at 9A after ~15 seconds
        + Wouldn’t trip at 5A even with prolonged exposure
      * Might require lower threshold than 5A for final product
        + Might use in conjunction with current sensors as failsafe
* Group meetings plan to continue every Thursday
  + Communication frequency and quickness in Slack and in-person discussions are satisfactory and should be continued
    - Any additional questions/comments/concerns are highly encouraged to be asked through these channels