Automated Microbial Analysis Weekly Meeting Notes

* Group Members in Attendance
  + Bendt, Zachary
  + Bruslind, Jorian
  + Hall, Macklin
* Project Unknowns and Risks
  + Can a single Raspberry Pi be used to do image processing AND motor control?
  + Should we include a depression to catch the finished samples?
  + How can we ensure accurate motor movement?
  + Do we need to implement half-stepping in the motors? If so, will we still have enough torque?
  + What purpose does our final project aim to fulfill?
* Tasks from This Week
  + Zach
    - Drafted v.1 Block diagram for data collection (1 hr)
    - Engineering Requirements Draft(2 hrs)
    - Drafted Client Email update (1hr)
  + Jorian
    - Added model for limit switch system(1hr)
    - Drafted mounting system for arm linkages(2hrs)
    - Drafted motor mounts (2hrs)
    - Purchased motors (15min)
  + Mack
    - Installed Python and began to learn Python syntax (1 hr)
    - Rewrote PowerShell script in Python (30 min)
    - Troubleshot Python script (1 hr)
    - Researched and purchased IEC320 C14 socket for project (15 min.)
* Group Meeting Topics
  + Raspberry Pi and Arduino interactions
  + Pertinent coding languages and libraries
  + Hardware interaction with code structure
  + Group roles and responsibilities
  + Custom PCB implementations and features
  + Power delivery methods
  + Meeting scheduling
  + Asana task tracking
* New Items
  + Determined Raspberry Pi will be sending G-Code to Arduino via a Python 3.x script
  + Determined that code will resemble a linear state-machine
  + Scheduled Scope and Requirements Meeting for Oct. 23rd at 11:40
  + Delegated administrative tasks to individual group members on Asana
* Tasks for Next Week
  + Zach
    - Finalize Client Update Email
    - Scope and Requirements Meeting Prep
  + Jorian
    - Assemble mechanical design for verification/review (5hrs)
    - Create RPI mounting system (2hrs)
  + Mack
    - Assemble and calibrate motor power delivery system (1.5 hrs)
    - Validate motor drive system (1.5 hrs)
  + Everyone
    - Keep an eye on Asana page for task updates
* Hours This Week

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total Hours | Hours w/ Team | Hours Helping |
| Bendt, Zachary | 3.25 | 1.25 | 1.25 |
| Bruslind, Jorian | 5.25 | 3 | 1 |
| Hall, Macklin | 4 | 1.25 | 1.25 |