

Team Meeting #6 Agenda

Old Business:

- Discuss upcoming deadlines
 - Project schedule is due tonight,
 - Logbook & portfolio review Thursday
- Check on budget adjustments
- Debrief about how client meeting went

New Business:

- Motor/linkage proposals
- Discuss anything else we might need to begin prototyping
- Decide when to start prototyping

Team Meeting #6 Minutes

Upcoming Deadlines

- Project Schedule Due tonight, identify milestones, submit by 7
- Hardcopy logbooks sent to Dr. Perry by Thursday with completed grading forms with reflection
- Portfolio compilation on Thursday
 - Agendas and Minutes
 - Create portfolio folder, each section will reside in a folder containing pertinent information
 - **Problem Definition-** Project requirements, Text to define problem (wiki site)
 - **Project Management-** Schedule, budget, contract,
 - **References-** Word document with website links, screenshots
 - **Design solutions-** sketches, designs, etc.
 - **Project learning-** materials, options to pursue
 - **Wiki page-** hold off for now

Budget Adjustments

Client Meeting Notes

Motor/Linkage Proposals: Check commonly used vendor catalogs

- Jett: R/C quadcopter motor with electronic speed controller, set up to push linear motion like a Sawzall, may not need a linkage system, may flex alright with a long enough distance, may generate heat and or generate standing waves, a cooling system could be incorporated if necessary
- Ryan: Linear actuators, gearbox on linak.com, use a small motor with a large gear ratio, we would want to check into datasheet to find max speed (in/s), @ 2mm oscillation and 2in/s we could vibrate at 15Hz, price unknown,
- Maclean: Solenoid design for linear oscillation, the full length of the stroke can be adjusted to increase vibration speed, build handle around 9V microcontroller battery to increase modularity, run entire device with 9V ~2.5hrs at 100mA, <https://www.actronic-solutions.de/linear-solenoids.html>, <https://www.youtube.com/watch?v=ZGq5KP3y6SA>
- Lucas: Solenoids will generally need 24V generator, looked into vibrational motors to replace Sonicare,

Prototyping Development Needs

- PLA/ABS Filament
- Solenoid
- ESC
- Motor
- Potentiometer
- H-bridge
- Adafruit Trinket
- https://www.sparkfun.com/?gclid=CjwKCAjwq_D7BRADEiwAVMDdHiY7XplB5aF5Yv8MMt_KLylLAWBxJZtEItNKKfKahyF19W-y-a6IrxoC-VYQAvD_BwE
- https://www.adafruit.com/?gclid=CjwKCAjwq_D7BRADEiwAVMDdHtcNmgxUzDmgs665FFClck3m6bYPIqOJ43Zf7KvhUy28xtw28fRviBoCB4IQAvD_BwE
- <https://www.phidgets.com/>
- Compile websites to purchase from, send to Dr. Perry or Zoom with him
- **Lucas is Designated Purchasing Agent**

Meet on Thursday at 3:30p

Action Items:

- **Maclean will compile the portfolio in preparation for the Thursday deadline**
- **Everyone look at above items and find a purchase location to send to Lucas**
- **Everyone go through the schedule on the Share Drive and add upcoming items to it.**
 - **Ryan will submit tonight @7p**