CHARM Lab Research Rotation Planner[1]

Name: Austin Yang **Email:** syang9@stanford.edu

Academic status: ___ Freshman ___ Sophomore ___ Junior ___ Senior
___ Co-term ✓ First-year MS ___ First-year PhD ___ Other: _____

Year: 20 24 **Quarter:** ___ Fall ___ Winter ✓ Spring ___ Summer

Course credit[2]**:** ___ None ___ ME 191 ___ ME 391 ✓ ME 392 ___ ME 398 **Units**[3]**:** ____

Funding: ✓ None ___ Hourly ___ SURI ___ REU ___ RAship (grad students only)

Expected hrs/wk: 5 **Mentor name(s):** Xianna Jitosho

Project Topic/Title: Control of the flying vine robot for some tasks

Deliverables (check only those applicable):
✓ Presentation at lab meeting (Date: June 4, 2024)
___ Report – Expected length/content: _____
___ Hardware/system _____
___ Software/programs _____
___ Experiment _____
___ Paper submission _____

Which of the following access is needed? (Also, see lab policies on reverse)
___ Safety training and then Bldg. 660 (MERL) + MERL 126 access by ID card (follow safety training instructions)
___ Add to lab email list (charm-mail@lists.stanford.edu)
___ Access to lab internal wiki page
___ Access to lab Google Drive folders
___ Access to lab slack workspace (charm-lab.slack.com) and appropriate channels
___ Added to IRB protocol for human subject experiments

What resources are needed?
___ New materials/supplies: $ _____ List items: _____
___ Machine shop: PRL or Huang Room 36 passes (quarterly or annually): $ _____
___ Computer/monitor
___ Desk or lab bench
___ Existing experimental setup: _____
___ Other: _____

Rough Timeline

Week 1	Set Goals
Week 2	Discussion about potential solutions
Week 3	Code the algorithm
Week 4	Set the experiment and get the training data
Week 5	keep optimizing the control
Week 6	keep optimizing the control
Week 7	Experiment and iterate more to optimize
Week 8	Experiment and iterate more to optimize
Week 9	Experiment and iterate more to optimize
Week 10	Final presentation

[1] Fill out this 2-page form with the help of your mentor and return to Allison by the end of the second week
[2] MS students use ME 391 the first quarter of research, ME 392 the second quarter; PhD students: use ME 398 during rotation
[3] Guideline: 1 unit = at least 3-5 hours/week; 2 units = at least 6-8 hours/week; 3 units = at least 10-12 hours/week

Lab Policies

- Unless there is a course conflict, attend scheduled lab meetings and participate actively (see schedule at http://charm.stanford.edu/Main/LabMeeting).
- Adhere to current rules for COVID-19 safety, including online scheduling, mask-wearing, and distancing.
- Back up all data/software/images *automatically* to the Google Drive (or GitHub if appropriate) for your project.
- Make sure the lab doors are closed/locked and turn out the lights if you are the last one to leave, any time of day.
- Do not use lab space, tools, or materials for a course project without Allison's explicit permission.
- Keep the lab clean and safe. Take responsibility for your own work area *and* either fix or notify the lab email list if there is a cleanliness or safety issue in *any* part of the lab.
- Return any tool to its storage location if you will not use it in the next 12 hours. Also return any unused small components/materials (screws, resistors, shrink tube) to their appropriate bin.
- Do not use personal tools/equipment in the lab other than laptops without Allison's permission; if you need something for your project, it should be purchased on the appropriate account.
- If there is an urgent safety or security issue (like a door won't lock), call Allison's cell phone (410-908-8188) or Anthony To's cell phone (650-272-8306). If it is possibly life threatening, call 911 (9-911 from a campus phone).
- Do not eat in locations where a spill could jeopardize computers or equipment, or where food contamination from lab materials could be unhealthy. Please avoid foods with strong smells in the lab. Label food in the refrigerator with your name and the date. Biological samples and other materials for research go in a separate refrigerator for that purpose.
- If you are working in a campus shop (e.g. PRL or Huang 36) or are using machine or hand-held machining/woodworking tools in the CHARM lab or any other location:
  - Make sure you have been trained to use the tool before attempting to use it
  - Wear safety glasses (all prescription eyeglasses sold in the US meet the requirement)
  - Wear closed-toed shoes (for machining/metal tool activity)
  - Remove all personal accessories and loose clothing that might get caught in moving machinery. This includes rings, watches, jewelry, smartphones, iPods, shop rags, ties, and open jackets.
  - Long hair must be tied up securely
  - Do not work alone, and do not work when you are impaired (this includes times when you are too tired, stressed, or otherwise inhibited from exercising appropriate caution)
- If we are running low on materials or a piece of equipment is not working, notify the lab member responsible (e.g., the equipment/materials coordinator listed at the bottom of http://charm.stanford.edu/Main/People) or Allison immediately.
- If you see that the paper or metal/plastic recycling bin (or the cup of used batteries) in the lab is getting full, empty it into the appropriate recycling bin in the hallway right outside the lab.
- Cardboard boxes should be immediately stored in an appropriate location (*not* left sitting out) or recycled in the large green corrugated cardboard recycling bin near the PRL.
- The lab futon is a couch for waiting human subjects, group discussions, comfortable working, and creative thinking – not for sleeping.
- Keep records of all purchases for your project, and order from the correct PTA (account). If you use the purchasing card (p-card), follow all rules for use and stay in close communication with the appropriate CDR staff member.
- If you plan on bringing a large group of visitors to the lab that might be disruptive to a human subjects study, please notify the group by advance email/slack. This avoids conflicts with experiments or other sensitive activities.
- Participate in at least three outreach events every year. Rotators should participate as well. See examples of past events at http://charm.stanford.edu/Main/Outreach and email the person with the outreach lab job to participate.
- Treat all members of the lab and associated staff with respect and courtesy. Understand our culture and expectations: "The CHARM Lab is committed to fostering an anti-racist, diverse, and equitable environment. We strive to build an inclusive culture centered around innovation in haptics and robotics. We encourage, support, and celebrate diverse perspectives."

While working with the CHARM Lab, I agree to abide by these lab policies.

Signature

Last modified: June 19, 2021