SAG Additional Documentation – Reflection

Interactive Robotics Laboratory Project

This semester, the Human Interactions Robotics Lab (HIRo) has re-defined the leadership structure to encourage first-year students to get involved early on in our leadership discussions. First-year students could work with upperclassmen to plan out meetings and discussed new directions for the team. Furthermore, our team also wanted to go for conferences in the next one or two years, and by re-defining the leadership structure, we hope to establish a sustainable team that could achieve our mutual goals.

We also kept the scrum tradition to keep the whole team up to date. The scrum is a five-minute stand-up meeting every Friday where we report the progress of our individual work and plans for the coming week. Because many members of the team worked on different parts of the project, this helped the entire team stay together and seek advice from each other. We will keep this structure in the future as our team expand and work on projects of more diverse topics.

Using the SAG grant, we succeeded in buying hardware that can connect two robotic arms to work together. We also bought wooden dowels for our perception team to experiment with early on. Furthermore, we purchased a GPU box that can extend the graphics processing capacity of our Olin laptops to train machine learning models. For this purchase, however, we did not have enough budget to buy a newer graphics card so we temporarily used an old graphics card provided by a team member. Finally, we got a computer monitor to facilitate our meeting discussions and to serve our presentations to external audiences.

Overall, the Human Interactive Robotics Lab had a successful semester. Though we didn't really have a final project, we eventually managed to develop the core systems for our humanoid robot and learn the fundamentals of machine learning that can be presented at the Olin EXPO. We look forward to a better semester in the future and sincerely thank the Olin Robolab and Student Activity Grant for the support.