

Trevor Decker

IRL 08

Team B the Monkey Bots

Team mates:

Steph Chen

Ian Rosado

Ian Hartwig

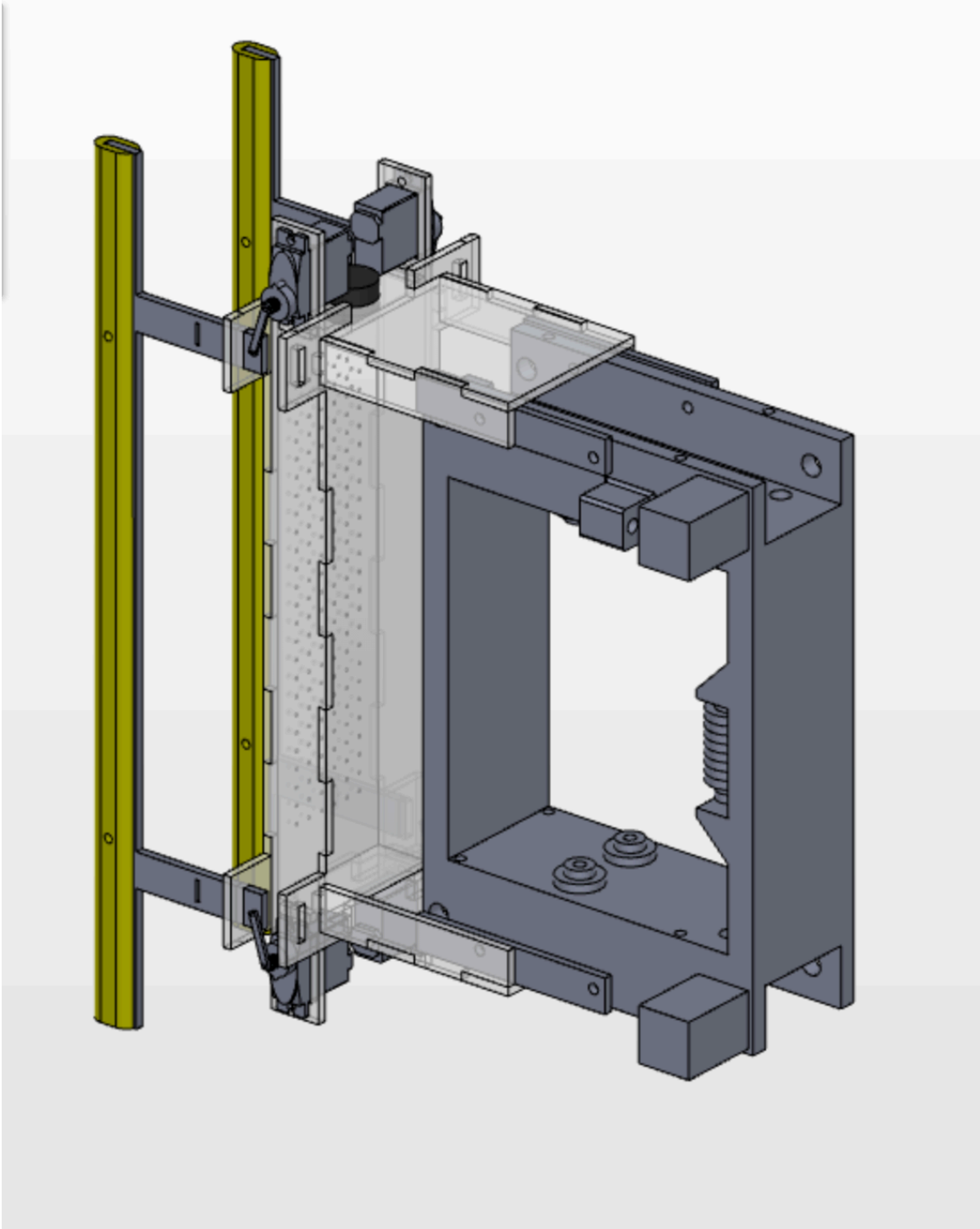


Figure 1: A cad model of the cleaning unit that we worked on assembling for this weekend. We built pretty much everything in this picture. The only piece that is still missing is the extension belt.

Individual contribution

This week I worked on the assembly of the cleaning unit for our robot . This involved 3d printing a the base slider pieces which rolls along the super structure of the arm. It has Delrin rollers on it to allow for this rolling action. The only piece that is missing from the cleaner is the actuation of the servos and the stepper motors for the extension belt. We have ordered the extension belt but it has not come in yet.

Team work

This week I slightly helped Ian H with setting up the control of the ST board and wiring parts of the robot.

I also helped Ian plan out and print the power chain motion system that he has been working on.

Steph worked on assembly of the robot, and adding metal spacers for the pivot gear box.

Ian R, Ian H and I worked on developing and building the C clamp gripper which we demoed on Wednesday.

Challenges

The main challenge that we are facing is the limited amount of time we have left in the semester. The robot has to be ready in 2 weeks.

We have also run out of budget, due to several parts breaking during manufacturing and higher then expected shipping prices we have exhausted our budget.

The cleaner slides well on part of the robot but once it is only contacting one tube of the robot it tends to bind. To fix this we plan to add a plastic support which extends with the arm.

Plans for next week

For next week team B plans to be able to rigidly attach the arm to the 8020 window frame and clean a 12" horizontal section of the window (autonomously)