Trevor Decker
Teammates: Steph Cen, Ian H, Ian R
Team B
IRL 3

Individual

This week I developed a vision detection program seen in figure 1. The prototype shows that we are able to detect the 8020 frame of the window.

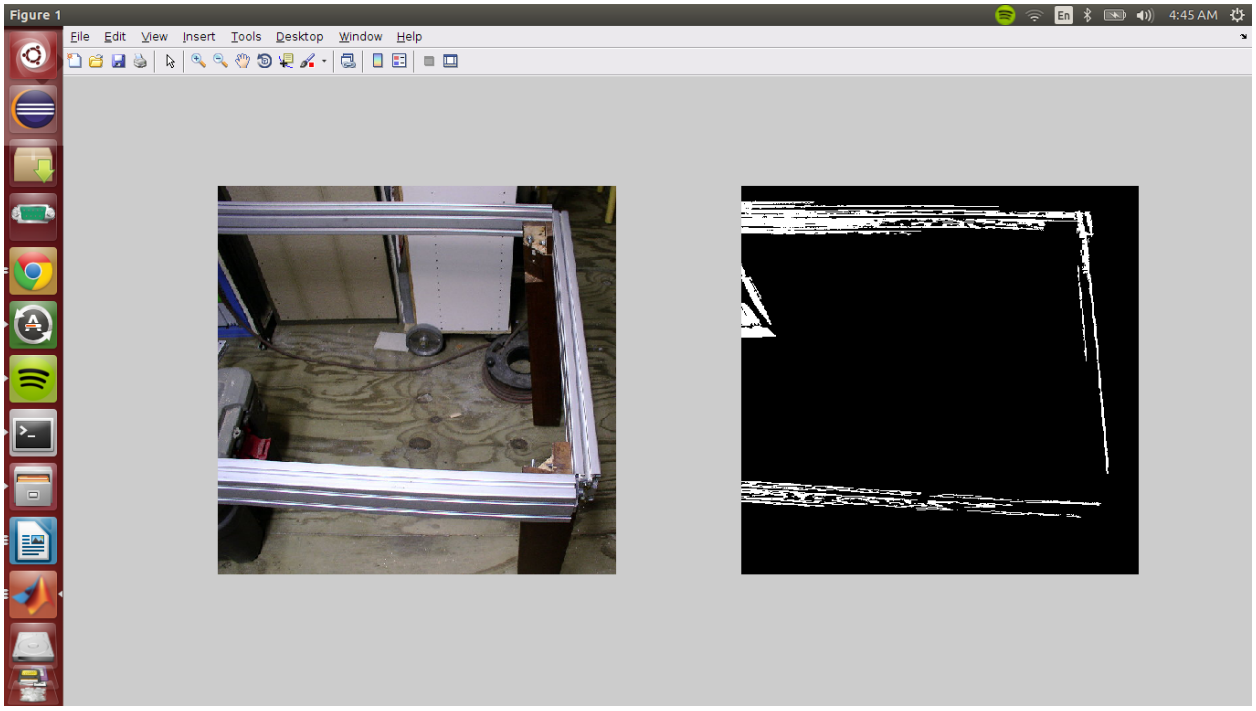

Figure 1. On the left we have the original image, on the right we have the thresholded image which shows the portion of the image which is 8020 segmented away from the background of the image.

Team Work

Steph/Ian H: I worked with Steph and Ian H to select parts to order to begin the construction of our robot. We ordered medal and gear's for our arm.

All: All members of the team worked together to develop a cad model of the robot this is seen in figure 2. Where we have the two pieces of box aluminum which will serve as the superstructure of the arm and a rolling assembly which will move the two parts of the arm.

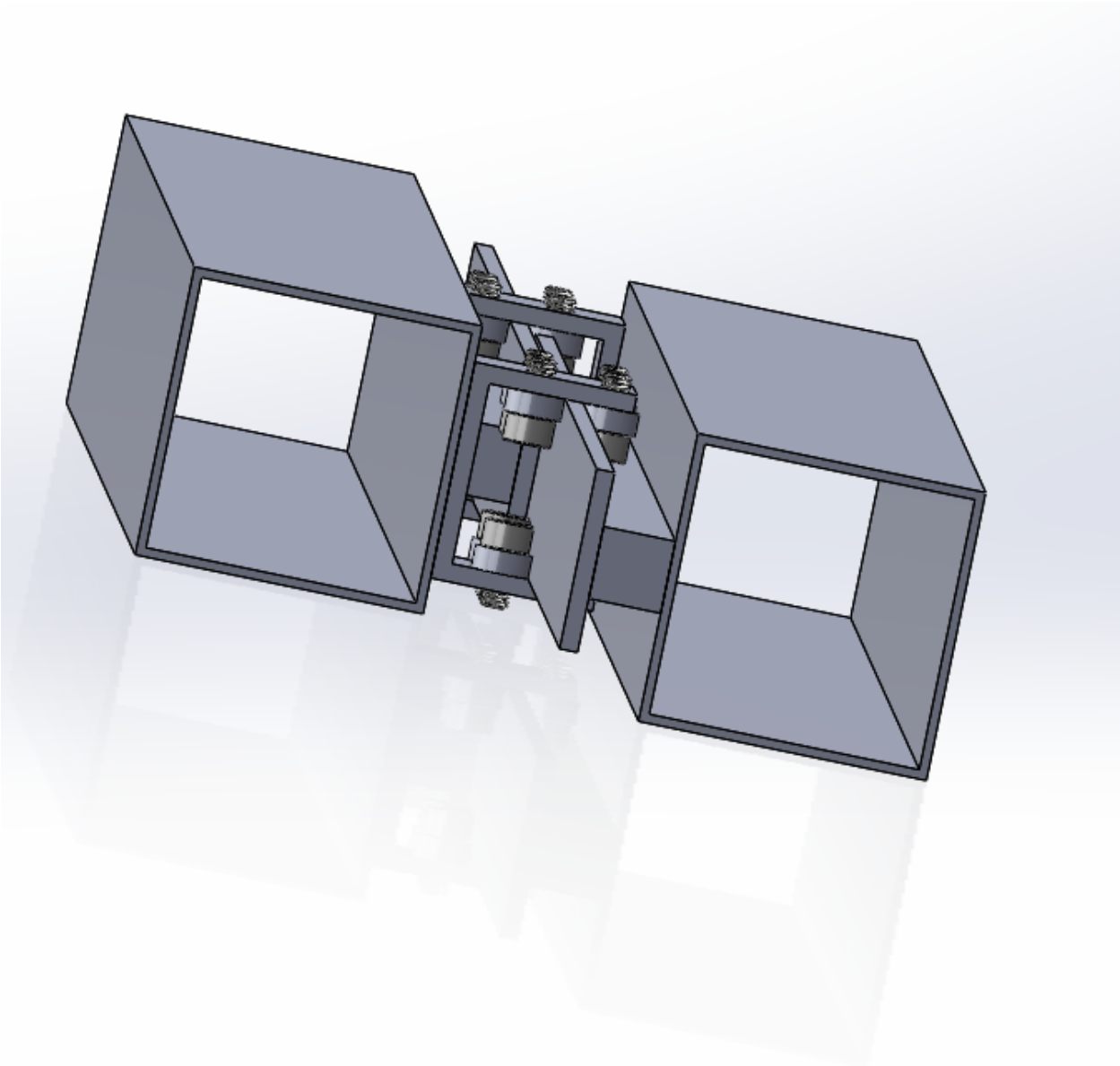

Figure 2

Ian R: I worked with Ian to lasercut the claw prototype. I also worked with him to wire and control the stepper motor which controlled the claw.

Challenges

Our current gripper does not seem to work because the collar which we use to attach our gripper to the motor slips. We also figured out that the area to clamp on to is very small.

We have also been having a hard time getting on hands on an acme screw tap and a hex broach.

Plans For next week

Need to start figuring out the control system for our robot and actually start writing code for the st board or a beagle bone black if we decide to move away from the st board.

We need to rebuild a smaller working gripper prototype.

We need to finish our cad model