

After extensive testing and observation, we discovered that the thin shaft in the elevation would slightly deform during the ascent due to insufficient strength. Although this deformation was not visible to the eyes, it was a real issue.

Therefore, we decided to install a C-channel at the rear of the Robot and secure the thin shaft by passing it through bearing mounts attached to the C-channel.

After the modification, the elevation time are reduced to only about 3 seconds.

Problem 2: Previously, we used cut pieces of PC to form a shape that would limit the position of the Robot. However, it did not work well for our Robot.

We installed bearing mounts on the both sides of the elevation arm to increase friction and protect the Cata motor on the elevation mechanism. We had 2 long screws on the centre channel of the Robot to limit forward tripping, but due to the imperfect balance of Robot's center of gravity, there was still a slight forward tilt when elevation.

Therefore, we decided to add some additional weight.

project

designed by:

witnessed by:

date: