

the side elevation more stable.

Therefore, we decided to implement 2 tilted side elevation mechanism. However, due to the intake mechanism of the Robot being too far forward, the front section became too heavy, resulting in an excessing forward center of gravity. As a result, after elevating on bar, the Robot had excessive inertia, causing the wheels to easily touch the ground and not earn points. Initially, we thought of installing screws on the top of the side elevation arm to allow it to hook onto the vertical bar of the side elevation arm, providing some limiting effect to solve the center of gravity issue. However, through testing, we found that the screws only hooked onto the bar in very few cases during side elevation, and the effect was not ideal.

We also tried to add padding to the wing, but it will occupy the movement space of the C-level elevation.

Therefore, we adjusted the center of gravity by lifting the elevation arm, shifting it backward to improve the success rate of side elevation.

