

a screw for pulling the rubber bands. When we lift the elevation arm, the screw on it will hook onto the rubber bands elevation other nut columns, increasing the number of rubber bands and their tension, thus reducing the time required for the elevation arm to ascend.

However, because one side of the elevation arm has a stone-throwing motor, installing a 2x7 C-channel on that side would cause it to get stuck during the ascent. Therefore, we only made this modification on one side.

Additionally, we drilled holes in the steel shaft and installed it at the rear of the Robot to adjust the center of gravity. This also raises the height of the PC shovel when raised, preventing the PC from bending directly due to a small angle with the Robot during collisions, serving as an anti-toppling measure. Finally, we changed the limit device of the elevation mechanism to a rubber mushroom head to prevent the Robot from moving backward after elevation, which would cause imbalance.

Through this improvement, we aim to enhance the performance of the elevation mechanism.

project

designed by:

witnessed by:

date: