

We installed two 22*3 C-Beams that can rotate 210 degrees above the Robot, and fixed them at the 10th and 11th grids

This structure can stabilize the Triball. At the same time, it is linked to the lifting structure, which can save unnecessary motor use.

24/9 Diary 3.2

⊙ Joker: In order to make sure our Robot can drive across the long horizontal Elevation Bar, we set chassis higher than normal Robot. But it cause a lower elevation tier at the same time. So we began to design this again.

⊙ Kevin: Our first thought is to use 36T gears (x5) side-by-side. In that way, we can install 3 wheels. But it is difficult to keep balance while cross the Bar. Therefore, we decide to use 2 rubber wheel to reduce. So the gears which drive the rubber wheel need to be smaller. Consequently, the Gear group change to 36-24-36-24-36
 [The 24T gear is "idler", it won't change actual speed]

We still use Blue motors, the actual speed is 257.14 rpm.

$$600 \frac{\text{rev}}{\text{min}} \times \frac{36 \text{ teeth}}{84 \text{ teeth}} \approx 257.14 \frac{\text{rev}}{\text{min}}$$

project Version 3

designed by: Kevin

witnessed by: Joker

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