

16/11 Diary -1 Catapult design

Based on the overall plan, initially, we removed one Smart motor from the intake device, limiting our catapult to use only one smart motor.

Since the smart motor has a speed of 200 rpm, which is same as the 11W green motor, we decided to stick with the design in Version-1, utilizing a $60:12$ gear ratio.

Additionally, we referred to the catapult structure of team 81988E. We transform the original catapult into a puncher. This modification aimed to address the issue of triball trajectory deviation caused by variations in ejection speed. We also adopted their striking point, choosing to strike the triball at the lower half position to ensure smooth triball ejection and minimize rotational errors.



Thanks for the idea from 81988E



However, during continuous Triball ejection tests, we observed that the system would reach thermal saturation after approximately ten shots, making

project Vg

designed by: Kevin

witnessed by:

Joker

date:

11.16