**VRC Change Up Robot Design**

We are the Robopower team from Suez, Egypt. Last year, we have participated in the VEC Egypt Robotics Competition and won the robot skills champion, tournament champion, and excellence awards. And that qualified us to represent Egypt at VEX Robotics World Championship. We were pretty happy with the qualification, but after the Covid 19 came, the world championship canceled, and got isolated at home.
This year, we are participating again in the VRC Change Up challenge, but we could not have a meeting to work on the robot together. Thus, we decided to use Fusion 360 to design our new robot. We used the engineering design processes (EDP) by these steps:
Firstly, we identified the current game and the competition's rules.
Secondly, we made a great background by looking for some mechanisms that could help us.
Thirdly, we made a free-hand sketch for our robot's mechanisms.
Fourthly, we build the full robot design on Fusion 360.
Fifthly, we tested the robot by making a full animation.
Lastly, we modified the design.
Know we are working to build the robot with safety precautions.

Fusion was a very useful program when anyone from us finishes anything we chat with us by fusion and upload our work in the program. Because covid-19 we couldn't make a lot of offline meetings, so fusion helps us in our robot when anyone does something in robot offline we tell us by fusion and upload what we do before anyone do anything in the robot, we make it online first as you see in the video.