

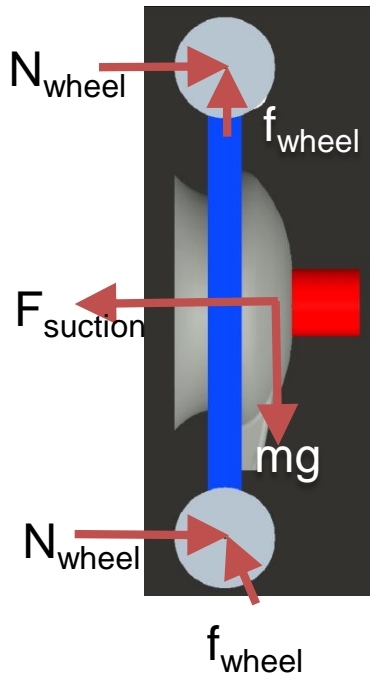
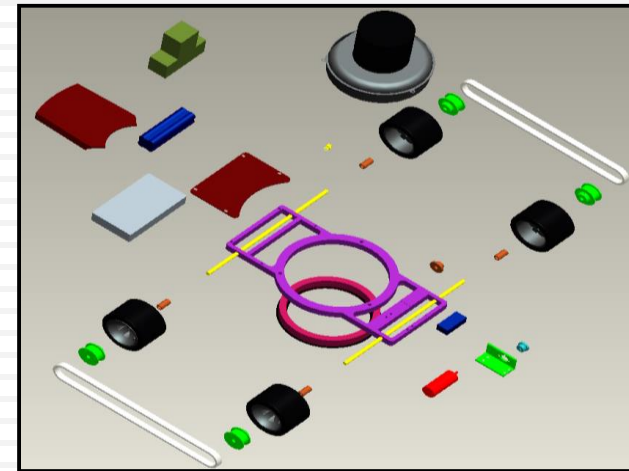
Team: Kyle Brouillette - Juan Pablo Padilla - Daniel Polonsky - Nick Clinkenbeard - Paul Lang

Goal: Design remote-controlled robot that moves on horizontal and vertical surfaces with ability to carry a payload.



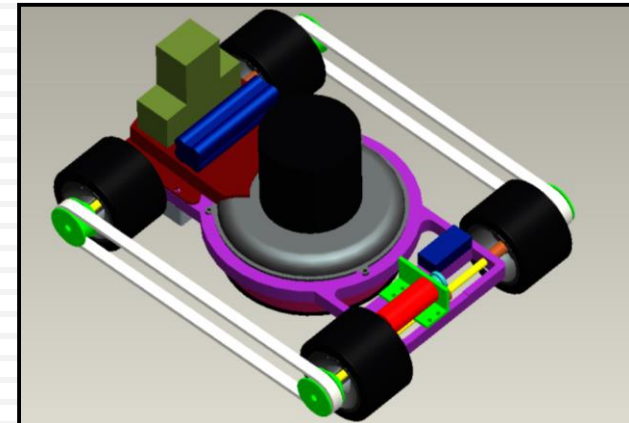
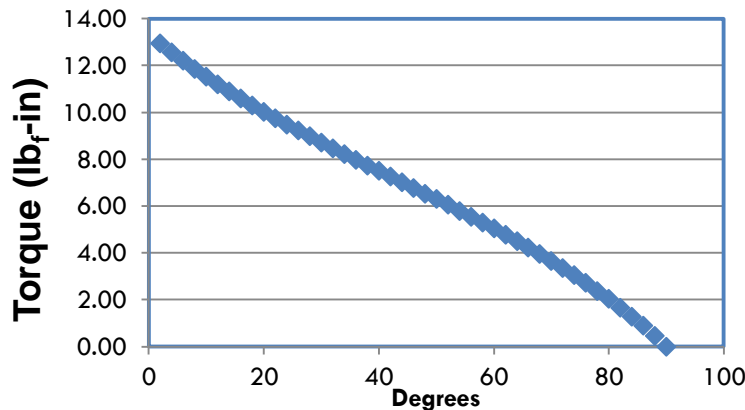
Constraints:

1. 20 lb total weight
2. 1.3 in wheel radius
- Requires 13 lb-in torque from motor

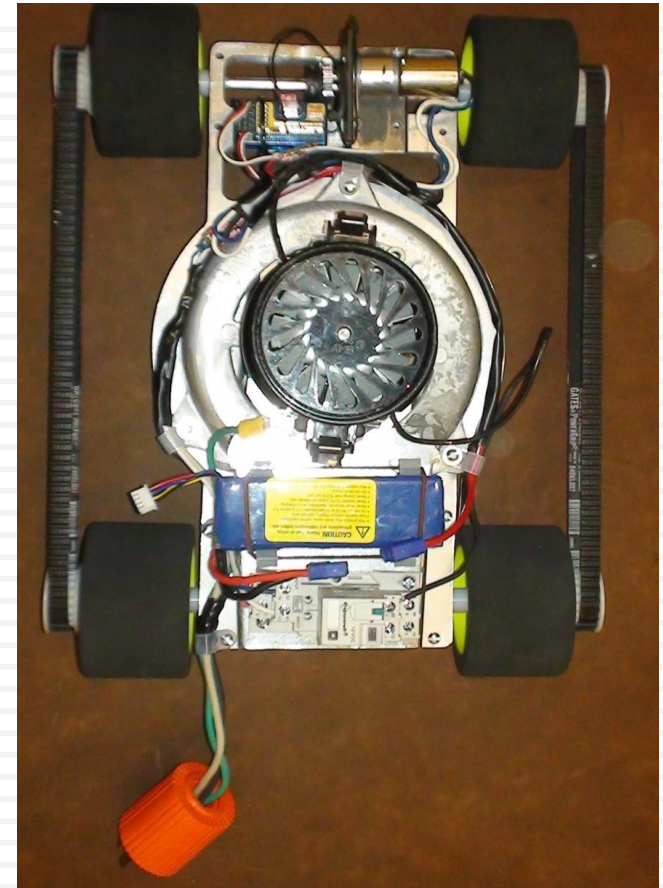
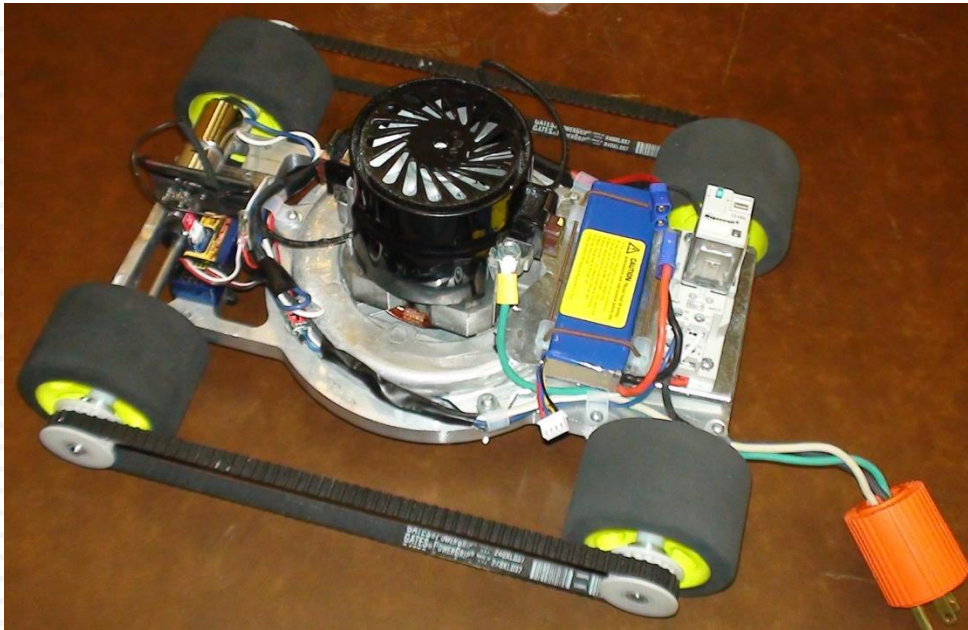


Assumptions:

1. Coefficient of Friction = 0.5
2. Weight = 20 lbf
- $F_{suction} \geq 40$ lbf



Prototype



- ❖ Robot weight of 6.3 lbs
- ❖ Capable of carrying 3.8 lbs payload