## **Ranking Points:**

- 2 RP for winning
- 1 RP for building up 40 kPa
- 1 RP for delivering enough gears to turn all 4 rotors

## Auton: 15 seconds

Start off with 10 "fuel" AND 1 "gear"

- 5 match points for mobility
- 1 match point for each "fuel" in the high-efficiency goal
- 1 match point for every 3 "fuel" in the low-efficiency goal
- 60 match points for turning a rotor

Max point potential for auton: 75 match points and 10 KPa (if one team carried auton) or 165 match points and 30 kPa (if all 3 teams succeeded in achieving all auton points)

#### Tele-op: 2 minutes 15 seconds

- 3 fuel in high-efficiency goal = 1 match point, 1 kPa
- 9 fuel in low-efficiency goal = 1 match point, 1 kPa
- Rotor turning = 40 match points
- Ready for takeoff = 50 points

#### **Rotors:**

- Stay on for the entire match once all gears are used to start it. However, they MUST be activated IN ORDER
  - Gears can be placed in any order
- ROTOR 1 requires only 1 gear to be placed
- ROTOR 2 requires 2 gears to be placed
- ROTOR 3 requires 4 gears to be placed and already has 1 pre-populated
- ROTOR 4 requires 6 gears to be placed and already has 2 pre-populated
- No safe zone around towers

## Touchpad:

- To count for the points the touchpad must be displaced by at least ½ in.
- Must be pressed for at least 1 second
- Must be pressed when the Teleop Period ends at T = 0

## **Constraints:**

- Only 1 gear can be controlled at a time
- There is a physical limit on the amount of fuel held at once
- Can not exceed 36 in. by 40 in. by 24 in. tall, or 30 in. by 32 in. by 36 in. tall, including bumpers and all extensions
- Robot weight must not exceed 120 lbs, excluding the bumpers and battery

- The climbing rope has to have a maximum width of 1 in, minimum 5ft 3in in length, maximum of 8ft length, top knot has to be 29in below the retaining knot
- You must be within the start line near a fuel goal in order to launch the fuel pieces.

# **Strategy notes:**

- Don't go for the low-efficiency fuel chute if we don't have to. It's not worth it.
- We will highly benefit from a rapid-fire fuel launch.
- We can hold a gear AND fuel simultaneously.

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<u>Auton Strategy</u> - Focus rotor 1st placement, then shoot fuel in high goal

**<u>Tele-OP</u>** - Cycle for gear specifically, don't bother with fuel until rotors are full