

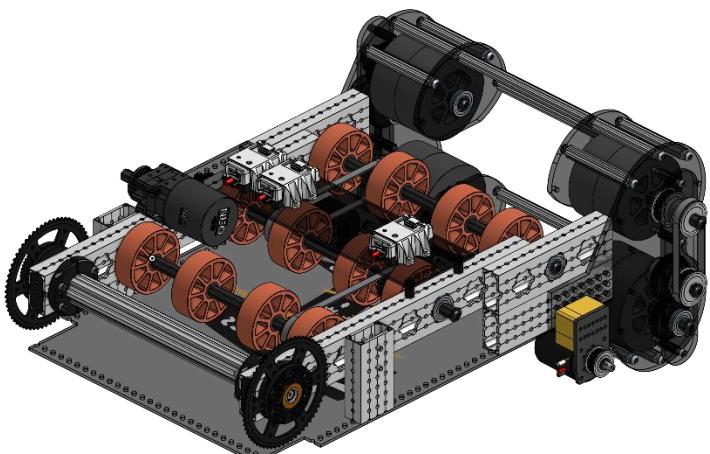


# BLACKWATER ROBOTICS

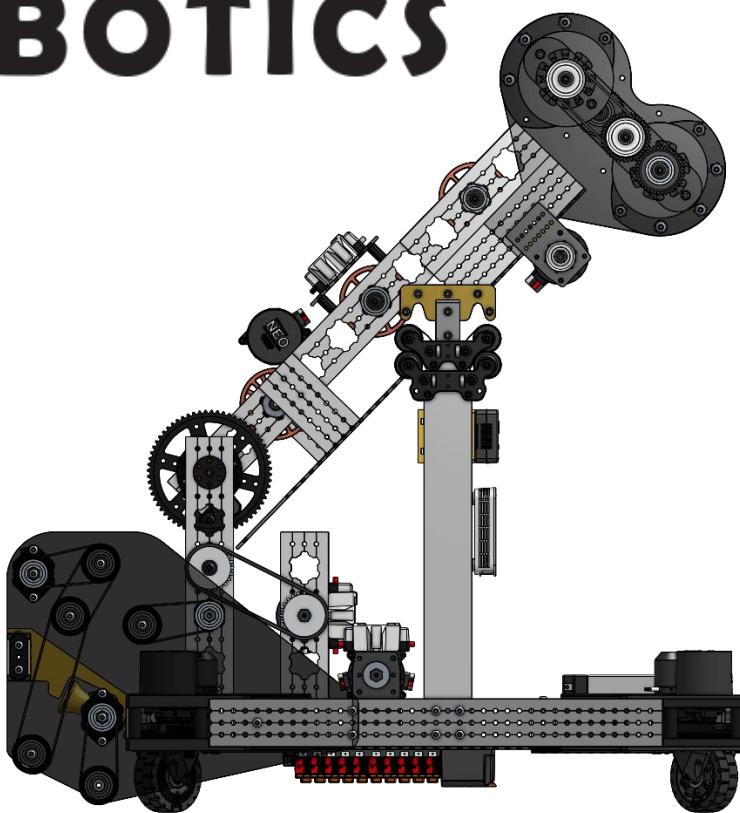
## “Titanic” Quick Facts

**Size:** 31" long x 26.5" wide x 23" high  
**Weight:** 100 lbs.  
**Drivetrain:** MAXSwerve (3.75:1, 19.81 ft/sec)  
**Total Motors:** 18

## Arm – Launcher - Indexer



- Launcher:**
  - 8x 4" 45A ThriftyBot Solid Urethane wheels
  - Powered by 2x NEO, 1:1
  - Split axles allow for independent left/right speed control
- Arm:**
  - Built from Rev Robotics MAX Pattern Tube and pivots on MAXSpline Shaft
  - Powered by 2x 100:1 NEO MAXPlanetary Gearboxes
  - 2.46:1 chain reduction, 246:1 total
  - Integrated Indexer with Note detection sensor
  - Through-Bore Encoder position control
  - Available Positions: Subwoofer, Podium, Wing, Intake, Source, Amp



## Intake

- Under-bumper intake inspired by team 95
- Five silicone covered polycarbonate rollers
- Powered by three 4:1 NEO 550 motors
- 3D printed centering rollers

## Climber

- Dual telescoping climb arms
- Powered by 25:1 MAXPlanetary Gearboxes
- Dual-sided chain hooks
- Max height deployment for easier Harmony

**CRES**ENDO<sup>SM</sup>

PRESENTED BY   
Gene Haas Foundation



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