



# BLACKWATER ROBOTICS

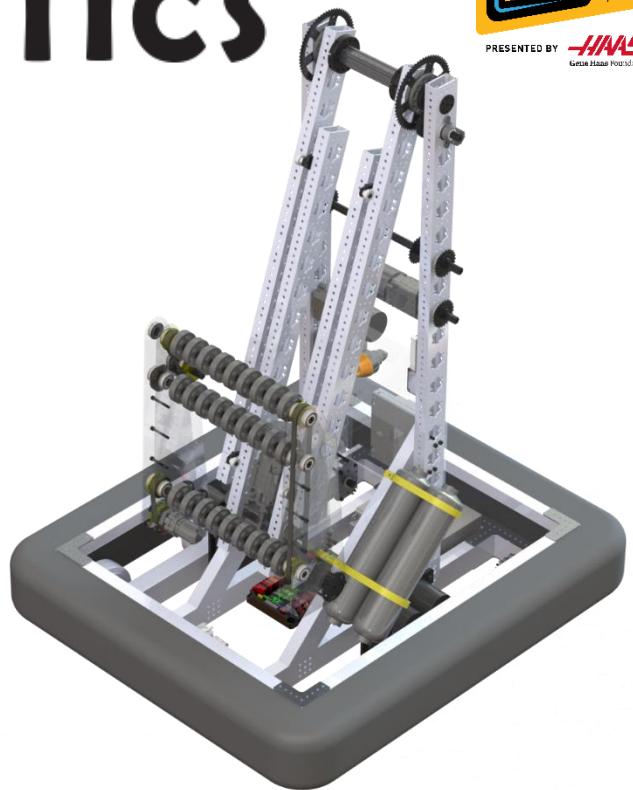


## “Convoy” Quick Facts

Size: 28" long x 24" wide x 46" high  
Weight: 108 lbs. (includes 17 lbs. ballast)  
Drivetrain: 6-wheel West Coast Drive

## Drivetrain

- 6-wheel West Coast Drive
- 5" Colson Wheels + Omnis
- Custom flipped 2x NEO gearboxes
  - 7.5:1 Total reduction
  - Estimated 15.5 ft/s top speed



## Arm

- Rev Robotics MaxPattern Tube
- Thrifty Bot "elevator" slides
- 363:1 total reduction
  - Driven by 2x 125:1 NEOs on MaxPlanetary Gearboxes
  - Additional 2.9:1 chain reduction
- Rev Through Bore Encoder provides position control
- Arm extension powered by two cylinders
  - 6" for floor pickup, L2, and HP
  - 15" for L3 scoring

## Intake

- Modified Everybot Intake
- Thrifty Bot 2" squish wheels
- NEO 550, 36:1 reduction
- Rotates on Rev Robotics 90 Degree Gearbox
  - Powered by 125:1 NEO
  - Rev Through Bore Encoder provides position control