

# Team 4499 The Highlanders

## Robot Spec Sheet

### *Introducing ...* **Pulsar**



## Robot Details

40 seconds for 6 stack of totes from landfill; 80 sec for 6 stack + container

### Intake Mechanism

4 Colson wheels on spring-loaded arms.  
Vex bag motors on VersaPlanetary gearboxes.

### Tote Lifting Mechanism

Belt-driven, dual-input  
RS-775/VersaPlanetary powered.  
Fully encoder enabled.

### Container Mechanism

4-bar linkage with aluminum forks.

### Drive Train

4-wheeled Vex Mecanum Drive With 4 RS775s  
on VersaPlanetary gear boxes and A-frame  
chassis

### Robot Specifications

Weight: 119 lbs  
Height: 5' 9"

### Special Details

Electronics board, side plates and intake arms made out of Carbon Fiber - made by the team.  
Most spacers and custom sensor fittings, plus Jetson, RoboRio, router and camera mounts  
made from our 3D Printer. Sheet metal parts cut on our team-built CNC plasma.

## Autonomous

Three totes stacked in auto zone – Computer vision assisted targeting