

Team 4499 The Highlanders

Robot Spec Sheet

Introducing:

Magnetar



Robot Details

Robot Specifications

Weight: 97 lbs (it's all muscle)
Full Height 23"
Compacted for low bar 15.5"

Scores both high and low goal boulders.

Front mechanism for portcullis and cheval-de-frise barriers.

Special Details

External and internal Carbon Fiber side panels (made by the team)

On-board targeting with Nvidia Jetson TK1

3d Printed roboRIO router and camera mounts

3 cameras for driver front and rear views.

Catapult Mechanism

2 1.5" bore Bimba pistons with 2 16in³ ballast tanks, mechanical locking and firing trigger.

Vision code to assist with high and low goal shots.

Drive Train

6 8" Pneumatic Wheels with 4 yellow McMaster-Carr roller wheels.

Intake/Outtake Mechanism

2 Versa 3.25" wheels with 2 4" mechatronics wheels powered by a Versa planetary motor. Intakes ball, stabilizes ball over defenses and pushes ball out.