



HAUPPAUGE EAGLE ROBOTICS

Robot Capabilities:

- Speed: ~10 feet per second
- Maneuverability: High
- Power: Strong (> 200 lbs Pushing)
- Reach: Long (12 ½ Feet High)
- Caps Both 5' & 7' Goals
- Loads Tetras from Auto or Human Loading Zones

Physical Details:

- Very low center of gravity, doesn't tip
- Modified Kit Transmissions with Incorporated Encoders
 - Optimized speed/power ratio
 - 6" pneumatic wheels for greater speed and power
 - 5' Tower with Telescoping Arm
 - Pneumatic Actuated Gripper
 - Lifts Tetras from Inside
- Push Down Pads for Maneuverability

Control System:

- Selectable 1 or 2 Joystick Driving ("Tank Drive")
- 3 Position Field Start
- 16 Autonomous Programs
- Script Driven Autonomous (3rd year running – very reliable)
- Drive Train Feedback Control (Encoders)
- Arm Feedback Control and Limiting (Potentiometer)
 - Automatic Back drive Compensation
- "The Wall" Reactive System
 - You Push Hard, it Pushes Harder

Sensors:

- Gyroscope
- Drive Train Encoders
- Arm Potentiometers

Additional Info:

- Duplicate robot for driver practice
- Retro-fitted '04 robot for robot-to-robot practice
- 6 year veteran award winning team
- Mentored multiple schools