TEAM 358, Hauppauge Festo/Fonar Robotic Eagles



Arm:

- Robot is able to hurdle the ball ~100 inches (8 feet) from the overpass or grab or place the ball.
- Design of the arm allows us to pick the ball up on the run and never needs to use the wall for pickup.
- *** Quickly knocks trackballs off of the overpass.
- Arm that allows the robot to carry the ball with an extreme tight grip via pneumatics.
- Arm is installed with 2, 60 lbs gas shocks, van door motor, and a gearbox geared for high torque which allows great stability.
- Powerful kicker able to launch the ball not only over the overpass but also kick the ball under the overpass.

Drive Train:

- Slicks installed on the front while Omni Wheels are installed in the back of the robot allowing the robot to turn efficiently with tank steering.
- Two speed robot pneumatic shift, 4 CIM drive motors.

Autonomous:

Over 10 autonomous variations including where the robot is is able to either <u>lift the ball off the overpass or knock the ball off with a high success rate</u>. Uses IR to select trackball position.