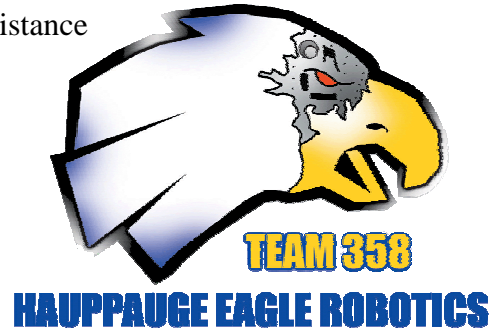


Festo/Hauppauge Robotic Eagles – Team 358

2006 SBPLI Regional Champion 2006 SBPLI Delphi's "Driving Tomorrow's Technology" Award 2006 UTC New England Regional Finalists

Shooter

- 2800 RPM 4" diameter rotating drums
 - Back spin allows further shooting distance
- 200 degree rotating turret
- Camera tracking for shooter alignment
- Three shooting modes
 - Full Automatic
 - Semi-Automatic
 - Manual-Heads-Up LED Targeting
- Shoots two balls a second
- Shoots from top – cannot be blocked
- Pneumatic ball feeder – shoots the same way every time
- Conveyor belt floor loading system



Drive Train

- 2 speed shifting transmission (10 ft/sec high – 4 ft/sec low)
- High traction wheels
- Multiple autonomous modes for offense and defense
 - Up to 30 autonomous programs to choose from
 - Can start and score from any field position
- Can rapidly and efficiently get on top of the ramp

Control System

- Closed loop feedback bringing shooting drums to speed within 500 milliseconds after a shot
- Closed loop feedback via drivetrain wheel encoders
- Gyroscope for directional positioning
- Potentiometer used for positioning of turret
- Ready, Aim, Fire System...
 - Ready – sensor ensures ball is in shooting position
 - Aim – camera tracking ensures targeting
 - Fire!!!

Additional Information

- Scores in center goals
- Greater than 200 pounds of pushing power
- 15 pounds of bumpers contributes to stability and traction
- 5th seed at the UTC New England Regional
- 1st seed at the SBPLI Regional
- 2006/2005 SBPLI Regional Champion
- 2005 SBPLI Regional Chairman's Award
- 2002 NYC Regional Champion