

Robot Fact Sheet 2014

Sacramento Regional – Aerial Assist

Penguin Empire Robotics - FIRST Team 2551

Shooting and Passing

- Consistent and accurate shooter
- Spring-powered “kicker”
- Pneumatic cocking system

Catching and Ball Control

- Pivoting wings for catching airborne ball and control
- Pivoting rear claw for ground ball retrieval

Drive

- Two-motor, 4-wheel drive
- Rear Omni wheels

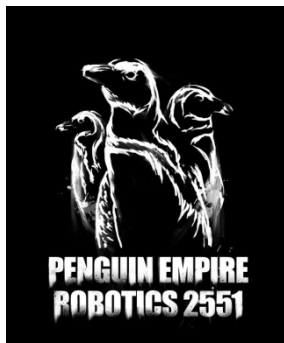
Operation

- Autonomous Mode - Consistent one-ball scoring
- Teleop – Remote operation



Technology

- 5 air cylinder pneumatic system operating at 60 psi
- Dual-spring 180 lbs cocking/kicking mechanism
- State-of-the-art air compressor cooling fan
- Targeting camera
- Two-motor, 4-wheel drive
- Rear Omni wheels
- Aluminum frame
- Aluminum and steel components
- Custom welding
- C++ programming



<http://penguinempirerobotics.weebly.com>