

2011 FIRST Robot - Seraphina

Drivetrain

 Six wheels driven by two CIM motors through Andy Mark Tough Boxes

Arm

 Aluminum truss construction with CIM motor chain drive and constant force spring counter balance

Grabber

 Two polycarbonate pieces with a pneumatic cylinder actuator to grip game pieces.

Sensors

- Drivetrain encoders in each of the Andy Mark Tough Boxes
- Arm position sensor potentiometer with limit switches at the minimum and maximum travel positions
- Wrist position sensor potentiometer with limit switches at the minimum and maximum travel positions

Minibot and Deployment Mechanism

- Pneumatic actuated mini-bot deployment system with automatic pole alignment
- Minibot with dual Tetrix drive motors, zero friction neodymium magnetic pole grip and automatic reverse

Specifications

Weight: 119.5lb

■ **Dimensions**: 28 x 38 x 60



