

Margarita

FIRST Team 245's 2012 Robot

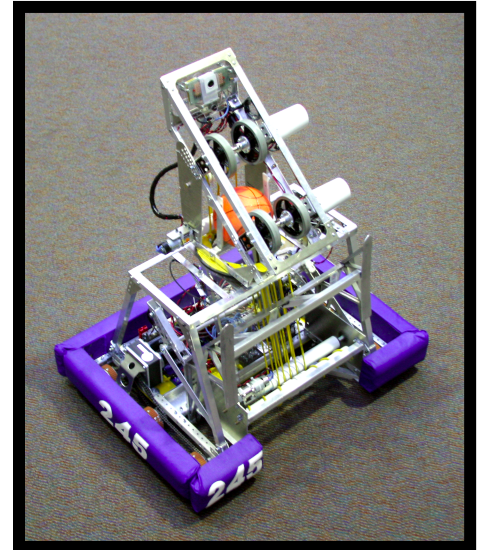


Drivetrain

- Wide base with six 4" high-traction wheels
- Four CIM motors with AndyMark two-speed transmissions

Ball Shooter

- Two pairs of wheels driven by two Banebot motors
- Shooter mounted on turret with greater than 180 degree rotation, powered by a window motor
- Wheel-speed feedback provided by optical sensors
- Camera imaging automatically aligns shooter and calculates distance
- Two 3x5 LED infrared arrays illuminate the backboard reflective tape
- Max range of 25 feet
- Drivers have the ability to add manual offset wheel speed and angle to adjust the shooting accuracy



Ball Conveyor System

- In-feed roller and lift conveyor powered by a Banebot motor with clutch mechanism to allow reversal of in-feed roller
- Three conveyor segments constructed with PVC shafts and hollow-core, round, urethane belts

Bridge Manipulator

- Aluminum construction powered by a Fisher Price motor and gearbox designed to allow Margarita to traverse bridge without stopping

**Learn more about Margarita and
AdamBots Team 245 at AdamBots.com!**