

Mentor Magic

Rookie robotics teams normally do *just OK!* Unfamiliar with the FIRST Robotics Competition (FRC), they design “straight-from-the-kit” robots, with little or no embellishment. The robots run but break often. Not so for the COMETS. The



difference is tremendous “Mentor Magic,” if you will. A half-dozen engineers from Magna Mirrors, led by VP of Engineering David O’Connell, are guiding the student team members, encouraging their ideas, pushing the testing of those ideas, and

overseeing the students’ final perfecting of solutions. Mentor Magic has also extended to computer aided design (CAD) and software programming to control the robot’s steering, sonar range finding, optical goal-sighting system and ball kicking mechanism. Roger Smith, Paul VanHuffel and Linda Abraham have been instrumental in the evaluation of options and follow-through.

Astounding 3D-Animation

Alongside feverish robot building, the COMETS are rounding another competitive corner. The challenge is to dream up a story, create storyboards, and then produce an animated video. Kara Argue and Danielle Coty have been working with 3D animation software, Autodesk Maya, to complete a 30-second digital short that focuses on solving real world problems. Applying their creativity to this software has given these students the opportunity to think “outside the box,” which should prove beneficial in the future. The deadline for FIRST’s animation regional competition is Monday, February 17th.



Robot Report

Everyday the COMETS’ robot is evolving—bigger, faster, better turning, better kicking ... unstoppable! The drive system is nailed down: Chain driven, with tank-style steering; power to all four wheels, with extra aggressive

traction for the front wheels. To kick the soccer balls in 2010’s BREAKAWAY game, the team has designed a pneumatically powered flipper at the front of the robot. Actual



“kicking power” delivered to the soccer ball will be critical, so for insurance, a mechanical kicking device is being developed on a parallel path, as well. Both designs will require refinement to accommodate the robot playing various positions on the field of play. Lastly, cushioned bumpers encircle the robot’s aluminum frame for protection ... for opposing “bots,” as well as our own.

Website Wonder



The COMETS are putting on the final touches on their new website—

www.comets.firstobjective.org.

The site is designed for members, sponsors and all interested parties. It reflects the team—bold imagery, lively videos and photos, helpful updates, interesting information about the COMETS and FIRST, along with links to sponsors’ websites. Visit us at

www.comets.firstobjective.org.

