

## High School Team

Greg Berry Lead Programmer (Branson Online Junior)

Rachel Hadaway Lead Builder (THS Senior)

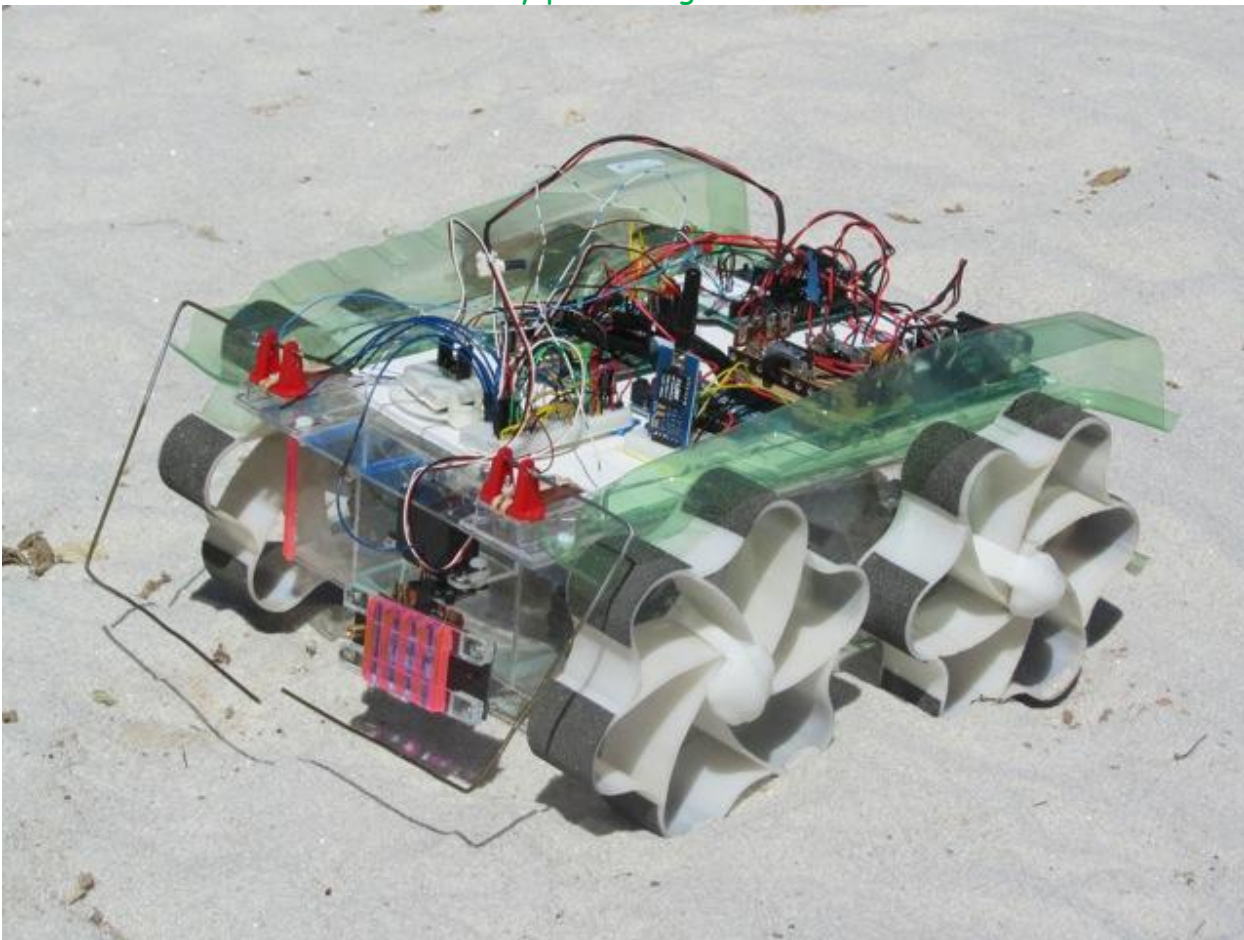
Janie Robinson Builder (THS Sophomore)

McCoy Nguyen Whiskers, Creator of our visual record (THS Junior)

CASPER II robot. 4 wheels, whiskers, laser, compass, tilt sensor beacon transceiver, all working together using Basic Stamps from Parallax in California. CASPER II has been redesigned from last year's challenge. (CASPER I was built by our advanced team).

This year, CASPER has stronger chains, better whiskers, more power and durability, and possibly a laser. CASPER was also designed to go a little slower this year so that the programming will keep up with the robot.

CASPER: Clear autonomous sensory perceiving environment robot.



Both robots are completely autonomous and make all their decisions based on their programming and not on a remote control. The challenge consists of four courses. Course 1 is basic maneuvering and finding the beacon (or going west). Course 2 is an obstacle course of rocks, walls or branches. Course 3 involves steep hills and deep pits while Course 4 is unknown until we get there. The course designers create the course so that each robot will fail at some point, thus leading to better designs in the future. As of yet, no one has gotten through Course 3, let alone Course 4. Last year, saw the first successful completion of Course 2 by CSU Fort Collins and by TSJC's CASPER I.

Advanced Team all sophomores at TSJC.

Onorio Franco Jr. Research Paper, Team Captain

Edgar Meraz, Programmer

Zach Scott, Lead Builder

SPAR robot

These three boys will also be going to CU Boulder (probably) and have applied for internships with the Space Grant program there.

SPAR has only one computer board that has 8 integrated cogs working together. The boys had to learn a new higher-powered language this past fall to program it. SPAR has whiskers, compass, beacon, and a tilt sensor. There are two motors driving the front wheels which were originally designed by Edgar Meraz last year for CASPER I.



There are three advisors

Cindy Clements Mathematics Professor and Faculty Robotics Advisor

Earl Nesbitt Electrical Advisor

Karen Howl Building Advisor

For the advanced team, we have been helped out immensely by Andy Lindsay at Parallax. He supplied the web-based lessons that we beta-tested for him. He also got us some proto PropBOE boards for us to test as well. He regularly helped us sort out problems with our transition to the SPIN language and the Propeller chip.



Edgar Meraz and Onorio Franco Jr.



Greg Berry and Zach Scott testing laser



Janie Robinson



Rachel Hadaway



McCoy Nguyen