

Project Title:	SAE Mini-Baja Design Project Power Train – Braking – Wheels – Tires
Client:	ONU Engineering Department
School Year:	2003-2004
Students:	Kevin Hughes and Carl Leth
Summary:	<p>The SAE Mini Baja design competition allows students to get hands on experience in the process of designing and building a go-cart. In addition, the students learn how to document and present each step along the way. Olivet entered the competition with a seven-man team: one team leader and 3 subsystem design groups. The team leader was in charge of coordinating everything, including integration and testing. They also gave valuable insight on each system of the car. Each subsystem group was in charge of designing, integrating, and testing each system within their group. The subsystem groups were: suspension and steering – frame and cockpit – power train, braking, wheels, and tires. Our group designed the power train, braking, wheels, and tires.</p> <p>SAE regulations were reviewed and problem statements were written for each subsystem. Next, it was time to research past designs, new designs, and possible suppliers. The research led to the generation of possible designs for each system. After each design was reviewed, a final design was chosen for each system. Once the designs were chosen, they had to be tested for their compatibility with the rest of the car. The designs were then finalized and construction began. After construction, more testing took place, which would simulate all of the events at the competition. Testing continued until the team was satisfied with the performance of the car. All that's left now is the competition.</p>

