eventually, my fascination with building led me to participate in competitions, including Odyssey of the Mind and Robofest. But FIRST LEGO League (FLL) was always my favorite because of the variety of challenges and levels of complexity it entailed. I participated in FLL in grades four through eight—every year I was eligible.

Exploring Problems and Solutions
FIRST LEGO League consists of three main components. In the Project portion, teams of students choose and solve a real-world problem. In the Robot Game, they use LEGO MINDSTORMS to build and program an autonomous robot to carry out a set of missions during regional tournaments. The competition’s theme changes every year, but FLL’s Core Values, which emphasize teamwork and a spirit of learning and friendly competition, remain consistent. Judging is based on teams’ adherence to these values, as well as on the project and the robot’s design and performance. A variety of awards are presented, with the Champion’s Award going to the team that performs best across all three categories. Teams with the highest overall scores advance to the state competition.

The first time I competed, my team had eight members, and our coaches were our parents. Unfortunately, as novices, we didn’t realize that having so many team members would actually make teamwork more challenging. For example, our goal was to meet two times a week at one of our homes, but it was hard to find times when everyone could attend. When we did, we often had conflicting ideas about everything from robot design and programming methods to which attachments our robot would need to complete the required tasks during competition. That year’s theme, Senior Solutions, focused on helping seniors stay independent, engaged, and connected. To simulate strength exercises, the robot had to lift weights. To mimic gardening, it placed “plants” in target locations, and it turned off burners on a “stove.”

For our project, we created a prototype necklace that vibrated, lit up, and made sounds to help remind seniors to take their medicine. Despite our earlier disagreements, we placed third out of around 25 teams for robot performance. The experience helped us prepare for future competitions, and—thanks to some high school students at the host school who let us play with their advanced robots—we were able to explore more sophisticated models. Most of all, it was fun.

Meeting New Challenges
Going forward, we limited our team to three or four members. For the next year’s theme, Nature’s Fury, everyone helped build the robot and the attachments it needed to complete tasks, which
Shasta (far left) and teammates during the 2013 Nature's Fury challenge