



## Indian Creek High School

December 11th, 2010

With the help and support of a great number of student and parent volunteers, Indian Creek High School hosted a first of its kind, overnight robotics event over the weekend. Teams began filtering into the high school on Friday at around 7:00pm to get their kits checked for consistency. By 8:00, all of the teams had arrived on the scene to learn what kind of task would be presented to them. Students from Indian Creek's Computers & Design class presented the animation explaining the game rules they had spent several weeks developing. As the documentation for the game was distributed to the teams, students were already examining the playing field trying to figure out how to get a small scale robot to play the back yard game "corn hole". Several of the teams immediately set off on the task of building a robot that would drive up on top of the corn hole boards. After spending four hours building this strategy, several teams began to have second thoughts, knowing they only had eight more hours to develop a working robot worthy of competition. A couple of the teams opted even to completely dismantle their robot to explore other design options.

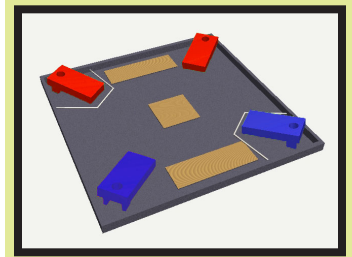
After six hours, student members of the Lock Tight Night staff came around with a Christmas gift to help relieve some of the frustration that a few of the teams were experiencing. At first, several of the teams dismissed the gift of rubber bands as useless for the task. However, it was not long until the rubber bands began to appear on tires for traction and on long extension arms to help them retract back into place. Tension began to get more intense as the time grew closer for the Engineers to arrive. By 7:20am, Engineers began to arrive and examine what the students were already designing. The Engineers wasted no time in walking around the pit areas and closely looking at the playing fields to get an idea of what concepts worked. All the Engineers had arrived by 8:00am and were organizing the parts on their work benches.

The staff held off introducing the teams to the students to allow the teams time to familiarize themselves with the kit and the game. By 8:15, the Engineer teams were already underway working through the building process while student teams began the practice rounds. As the students teams entered the practice rounds, fatigue began to overcome a few of them. The gym bleachers became concrete sleeping bags for some students who were ready to give up. Qualifying matches began around 10:00am, and some of the teams who were ready to go home earlier in the morning began to show signs of scoring. Crowds gathered around the qualifying matches as teams started taking notice of which robots were working. When lunch time rolled around, many teams had gathered enough confidence in their work that they were willing to break and eat in the cafeteria. In contrast, the company teams made a dash for the cafeteria to gather up their lunch and immediately took their food back to the lab area to finish their designs.

The company teams of Engineers not only worked through lunch, but one of the teams even worked all the way through the opening ceremonies, trying to perfect their design before having to compete in the finals at 2:00 in the afternoon. When the finals began, all of the teams were still tweaking their concepts, trying maximize their scoring ability. The company teams quickly learned how the game was played and did their best to bring themselves up to speed with the student teams. Throughout the game, students used their previous experiences with the game pieces and the Vex controllers to their advantage. At the end of the game, the Engineers would only take home the experience. The trophies for Lock Tight Night, however, went to the following teams:

Lock Tight Night

# HACK ATTACK



## Trophies

### *Lock Tight Night Trophy*

First Place Alliance  
 First Place Alliance  
 Second Place Alliance  
 Second Place Alliance  
 Engineer's Choice Award  
 Creativity Award  
 Community Service Award

### *School*

Greenfield-Central High School  
 C4 Columbus North High School  
 Jay County High School  
 Columbus East High School  
 Jay County High School  
 Greenfield-Central High School  
 Southport High School



## Company Rankings

### *Company Participant*

Cummins  
 Overton Carbide  
 Rolls Royce  
 Visual Edge

### *Ranking Out of 16 Teams*

7th place  
 10th place  
 13th place  
 15th place



## Corporate/Community Support

### *Sponsor*

Conexus Indiana  
 Quality Mill & Supply  
 Indian Creek Parents  
 Visual Edge, Inc.

### *Donation*

Shirts, Banners, & Posters  
 Allen Wrenches, Loctite  
 Supplies, Drinks, Food, Countless Hours  
 Community Service - Free Vex Kit

Hack Attack is based upon corn hole, which is a popular backyard game common to the midwest.

In this version of the game, the robot has the option to place the bags into an unguarded corn hole board for 1 point.

The only other option for scoring is a corn hole board which has PVC guards around it that is worth 4 points.

The guards keep the robot from getting back to the side of the scoring goal and dropping it in the hole.

