

# IEEE SoutheastCon 05 Fort Lauderdale, Florida



April 8-10 2005  
Broward Section & Nova Southeastern University

## Student Program Hardware Design Rules

All questions dealing with the hardware competition should be directed to:

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**SoutheastCon 2005 Hardware Competition Rules**  
Hosted by: Nova Southeastern University



**Robo Knights**

### Overview:

SoutheastCon 2005 provides a challenging game of robotics skill. Each team must successfully pickup five small metallic balls located in random positions on the opponents side of the playing field and bring it back to your side and then return with the balls to your original starting square. In the process they must avoid the opponent's vehicle which is trying to do the same thing. Each team will



have 5 minutes to get the opponents metallic balls. The metallic balls will be different for each team. Five will be matte black (black oxide plating) and five will be matte silver (clear zinc plating). Each team that **registers** will receive 10 (5 of each) free balls and one 1/2 inch washer. New balls will be provided at the competition.

This competition is open to undergraduate teams and graduate teams separately. Undergraduate students will compete only with undergraduate students and the same for graduate students. If possible one final round will be played that is made of the first place winner for undergraduate versus the first place winner of the graduate teams. Teams can only bring one robot per level. One for the undergraduate team and one for graduate team is applicable.

**NOTE: PLEASE DESIGN YOUR ROBOT TO TAKE INTO ACCOUNT VARIATIONS ON THE MEASUREMENTS OF THE COMPETITION TRACK. WE WILL DO OUR BEST TO ENSURE THAT ALL MEASUREMENTS ARE WITHIN 15% OF THE PUBLISHED COORDINATES.**

### **DESIGN TO ADAPT!**

#### **The Playing Surface:**

The competition will take place on a single sheet of plywood 4' x 8'.

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The competition will take place on a single sheet of plywood 4' x 8'.

All items listed below can be purchased from Home Depot.



**A single sheet of 3/4 inch 4 X 8  
SANDEPLY  
Home Depot# 454-559**