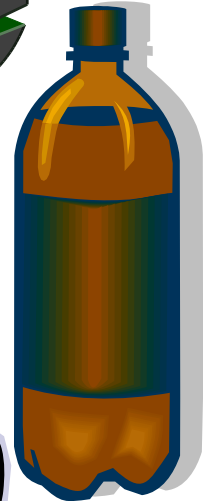


**MFSO Presents:**

**Bottle**

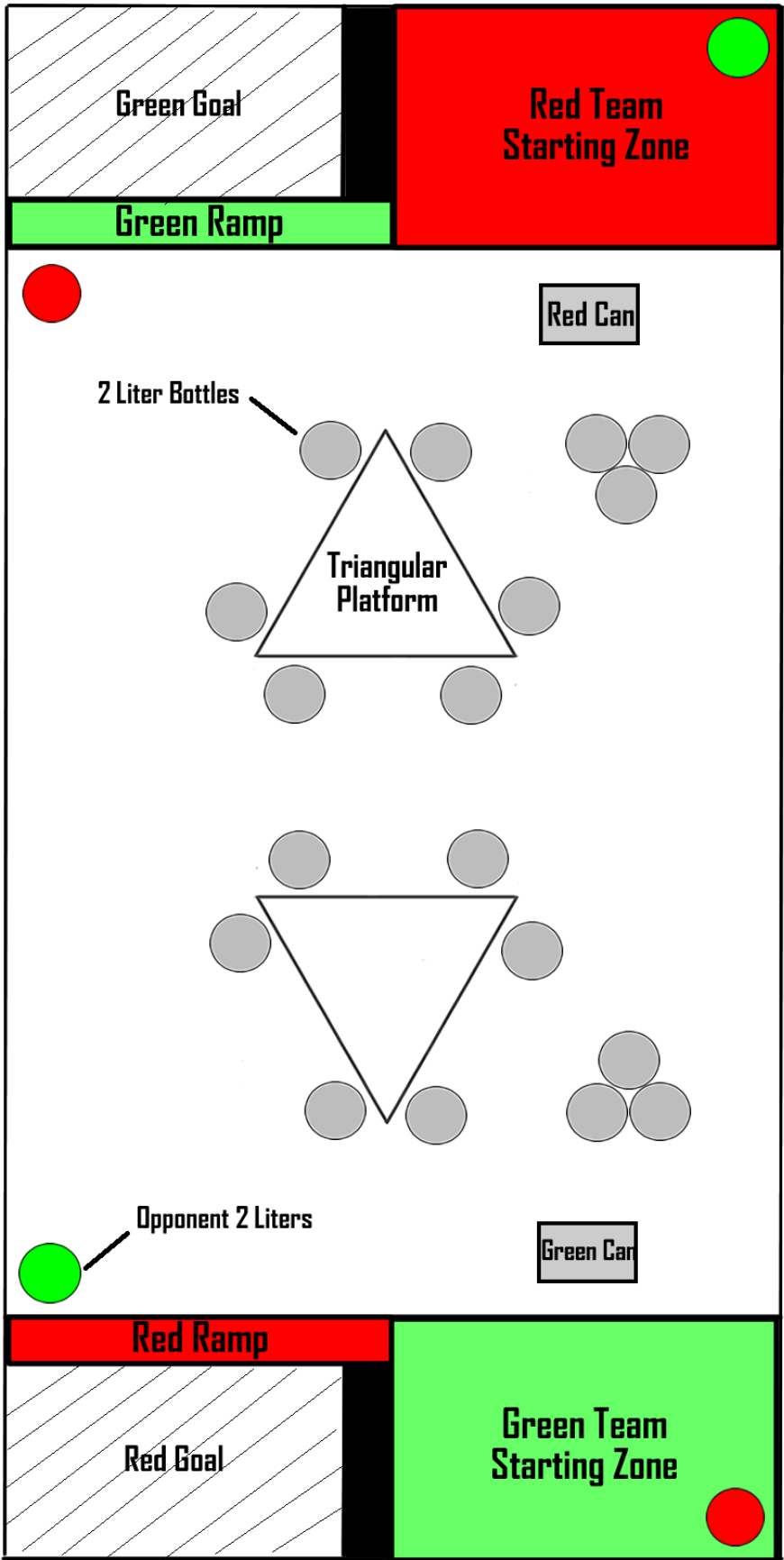
**Battle**

**2005**



**Week 1 Rules  
&  
Field Layout Instruction Manual**

Any Questions or concerns regarding this year's game should be directed to  
[bottlebattle2005@hotmail.com](mailto:bottlebattle2005@hotmail.com)



**Field Mockup**

The overall field dimensions are 8'x16.'

The two ramps are 4' in length and .5' deep.

The two starting zones are 4' in length and 2.5' deep.

There is a 2'x.5' barrier [black] separating the starting zone and the opposing goals.

The two triangular platforms are centered on the field with 3' of separation between them.

All soda bottle locations are approximate. It is recommended that tape is laid down for each bottle to keep placement consistent.

The "coffee cans" can be placed anywhere in front of the starting zone at the teams discretion. Cans can be placed in any starting orientation as long as the can is within a 1' distance from the zone boundary line. Cans must not be placed past the center line of the field.

## **Basic Rules**

- > The rules established for this game are effective for the 1<sup>st</sup> week of the pre-competition only, and will be updated each week.
- > The length of a match is two minutes.
- > Robots are restricted to official VEX parts only [for Week 1].
- > Spare assemblies and parts are permitted, as long as they are all official VEX parts.
- > Only 2 robots are allowed on the field at any time during competition.
- > Any intentional field or robot destruction is prohibited, and will result in a forfeiture of the match, at the judge's discretion.
- > Matches are determined by teams so that each team has equal playing time and face all opposing teams.

## **Field**

- > Outer field dimensions are 8' x 16'
- > Any field structure may be constructed to tolerances of  $\pm .25$ ."
- > Structures should be made with cardboard- at least .25"- and fastened to the table surface with Velcro.
- > Structures may and should be re-enforced in any manner [newspaper is recommended].
- > 2 coffee cans – any standard coffee can will be accepted, otherwise Gatorade cans or large cafeteria grade cans will be accepted, as long as both cans on the playing field are the same size.
- > 22 2L soda bottles- 24 empty, 4 filled with 3C. water and sealed tightly.

## **Game Rules**

- > No robots are allowed over the ramp and into the goal.
- > At the beginning of the match, robots must be confined in the area between the goal ramps and the field edge – 2.5' x 4' area.

## **Game Object and Scoring**

- > The object of this game is to have the highest total of points at the end of the 2 minute match.
- > Positive points are scored for getting your "coffee can" over your ramp and into your goal; positive points are also scored if you can get your opponents 2L bottles into your team's goal. This is a good opportunity for defense. Towards the end of the match, positive points are also scored if your robot can make it to the top of the triangular platform.
- > Points are lost if you knock over the empty 2L bottles while maneuvering the field, or if your opposing team takes control of your "coffee can" and maneuvers it into their goal.
- > The point breakdown is as follows:
  - > Knocking over a 2L = -5 pts
  - > Knocking over a 2L surrounding the triangle platforms = -10 pts
  - > An opponent pushes your coffee can into their goal = -5 pts
  - > Pushing your coffee can over the ramp = 10 pts
  - > Pushing your opponents soda bottles into your goal = 15 pts
  - > On triangle ramp at end of the match = 30 pts
  - > Default lowest score at end of game = -20 pts

## Construction

The field structures were constructed to be as affordably built [free] as possible, considering the short duration of the field usage. If a certain field structure conflicts with a team's resources, exceptions may be made.

- > 2 "zone barrier" boxes should be built to separate the starting area and the opponent goals.  
Overall Dimensions: Height= 6" Width = 4" Length = 2"
- > 2 "goal" ramps should be built- one for each side of the field.  
Overall Dimensions: Height = 4.5" Width= 6" Length = 4'
- > 2 triangle ramps with a height of 6" and made to the specified drawing [see attached].
- > 2 pieces of 22" x 24" cardboard are needed for zone boxes construction.
- > 4 pieces of 6" x 8" cardboard for end caps for zone boxes construction.
- > 2 pieces of 4' x 20" cardboard needed for zone ramps construction
- > 2 pieces of 8" x 12" cardboard for end caps construction
- > 2 pieces of 40" x 33" cardboard needed for triangle platform construction
- > 2 pieces of 33" x 29" cardboard needed for triangle base construction

**NOTE:** Joining tabs of 1" – 2" may be recommended on joining seams, but is up to those building the models. Packaging tape, duct tape, or a pneumatic boxing stapler is recommended to join the field structures.

**NOTE:** Cardboard sheets retain the most strength when they are not pre folded. Washing machine or picture window boxes, or other large boxes, are recommended because of their thickness and large, unbent surfaces. Washing machine boxes can often be picked up for free at your local appliance store.

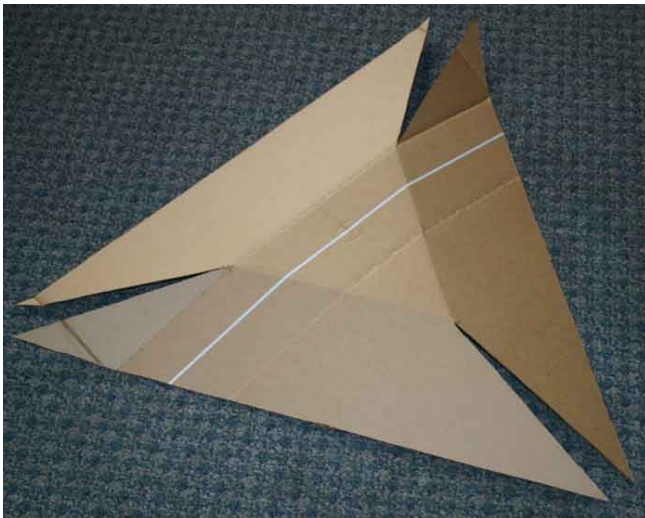
## Construction Photos:



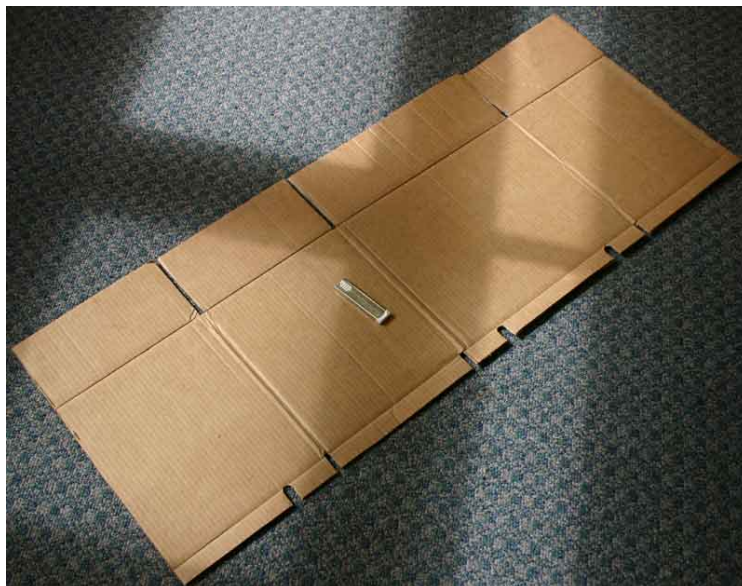
**This photo shows the cutout with the tabs, this one is for the ramp end cap.**



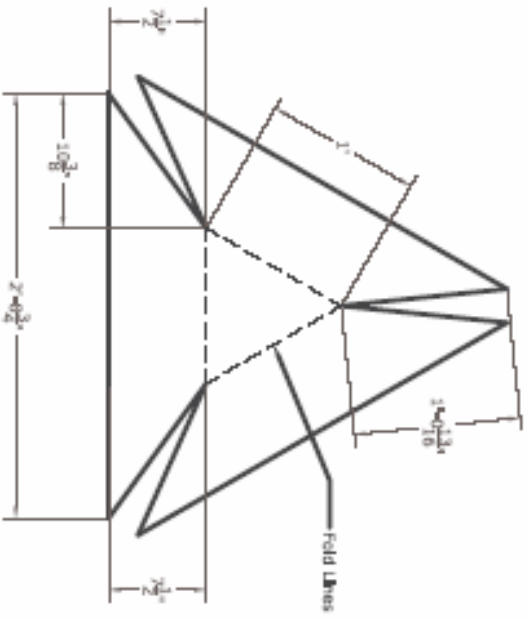
**This photo shows the finished ramp endcap.**



**This photo shows the triangle ramp before it is joined to the base.**



**This photo shows a poorly built ramp with cardboard that has many cuts and bends across it, making it very weak.**



Center Field Element  
MFSO VEX Challenge

