

## Design Brief: Maryland Pride Preakness Hat

### Problem:

You have come to the Preakness with no hat to wear! (*Gasp!*)

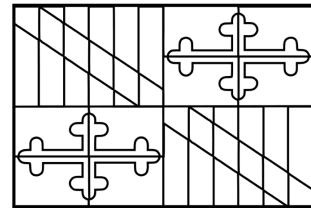
*(The Preakness is a famous horse race at the Pimlico race track in Baltimore, Maryland. People like to wear fancy hats to the Preakness!)*

### Goal:

To engineer a hat that displays Maryland pride.

**Constraints:** Good news! Your team is prepared for this kind of situation. You gather the following items from your cars and teaching bags:

- 16 fuzzy sticks
- Some clear tape (just 5 cm of tape left – drat!)
- Crayons and scissors
- A State Flags coloring book; it has a ready-to-color image of the Maryland flag (see Appendix A-2 for a sheet of black-and-white Maryland flags for you to cut and use.)



You've got 12 minutes to create your first attempt at a Maryland Pride Preakness hat.

**Criteria:** Your hat should:

1. Support itself for least 10 seconds on a team member's head without falling off.  
*Cannot Support Itself = 0 points      Can Support Itself = 3 points*
2. Include a correctly colored Maryland flag.  
*Incorrectly Colored = 0 points      Correctly Colored = 3 points*
3. Hold the flag as high as possible; higher is better; measurement is from top of head to bottom of flag.

*0 – 10 cm = 0 points*

*11 – 20 cm = 1 point*

*21 – 30 cm = 2 points*

*31 – 40 cm = 3 points*

*and so on ...*

*~ This Design Challenge was created by Pamela Lottero-Perdue, Towson University ~*