**Phys 220 - Force Vectors**

*Materials and equipment:* 5 sheets of newspaper, blue 2 inch painter’s tape, ring stand and a 2 ounce Snicker’s bar.

Your group’s challenge is to use only the 5 sheets of newspaper and tape to get your Snicker’s bar as far from your ring stand as possible. The group with the largest distance receives 5 bonus points.

Rules:

1. The ring stand must stand upright, as designed, flat on the table or floor.
2. You can only attach your materials to the post part of the ring stand, not the base of the stand, the table, ceiling or any other item.
3. The Snicker’s bar must be suspended only by the materials described above.
4. No distance below the base of the ring stand will count.
5. The suspended Snicker’s must be in equilibrium. No motion for a full minute.
6. The minimum distance between the closest portion of the post to the Snicker’s bar will be measured.

Write up:

 Please describe your approach. Include in your description any ideas that your group had but decided not to try and why you decided against them. Also please describe any other approaches that you tried today and why they did not work as well as your final set up.

 Draw a diagram showing your final setup with all distances noted. Draw the force vectors of your final setup. Explain why, using these force vectors, your setup successfully suspended the Snicker’s bar in the air. Don’t forget to consider the x and the y directions separately.