



analysis

Hoop pairs were attached concentrically at different widths to determine how adding width to the hoop would aid in its stability. Hoops were tested at widths of 20mm - 90mm.

It was shown that pushing the hoop at 40mm to 60mm still had a low chance of falling over at very low speeds. However, at widths of 70-90mm the stability improvement was negligible, and would rob the game of any skill needed to perform the task as the hoop will become more stable as the rotational speed increases.

solution

Originally the hoops were meant to be attached to one another concentrically, using a third or fourth hoop if necessary as spacers for further stability. However it was decided that only one hoop should be made with various width tire mouldings to keep the assembly of the product to a minimum.