



HERCULES AIR DROP CHALLENGE



What do you need to do?

The challenge that you have been set is to build something to safely deliver a package (egg) by air. Your challenge is to make sure that it lands safely without suffering any damage!

Resources

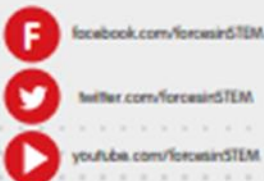
The following materials and tools are recommended:

- A4 Paper
- String
- Plastic/Paper Cup
- Plastic Bag
- Cotton wool ball
- Balloon
- Sellotape
- Scissors
- Package (Egg – We suggest putting this in a small bag so that it doesn't create a mess if it cracks!)



Testing Procedure

The package should be dropped from a high height onto a hard surface (suggest approximately 5 meters).





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What do you need to do?

Discussion Topics

1. What are the forces acting upon the package (egg) during the fall and on impact with the ground?
2. What are the different ways to reduce the likelihood of the package (egg) being damaged?

Further Discussion Topics

1. What packages may we wish to deliver by air?
2. What are the benefits of delivering help by air rather than by road or sea?
3. Why is it important to protect packages?



Thank you for taking part in the Forces in STEM challenge, we hope you enjoyed it. Do not forget to upload a picture of your completed challenge to the event webpage and tag us on social media using @rafmuseum, @rafyouthengage and use the hashtag #ForcesinSTEM. We look forward to seeing what you create!

