



INVENT THE SUMMER

Week 5: Crash Test

1 Complete the Challenge.

Design and build a vehicle that keeps your crash test dummy safe in a crash. But there's a twist — you must use the 3 mystery box items to complete your design. The items are a bottle cap, a paper clip, and a rubber band!

The Rules

You CAN:

- ✓ ALL three mystery box items must play an important, and functional part in your design.
- ✓ You may modify these items in any way to make them more useful.
- ✓ You can build any kind of moving vehicle: a car, a rocket, a plane, whatever!
- ✓ Your crash test dummy can be homemade, but it has to break if it's unprotected.

You CAN'T:

- ✗ Don't just add safety features to a toy car — you have to build your own vehicle.
- ✗ Don't get frustrated if your dummy doesn't survive the first crash. Keep tweaking your design until he's safe.
- ✗ Don't add anything to your dummy to make it safer. The safety features must be added to your vehicle.
- ✗ You can't just stick the mystery box items to your vehicle. They must actually do something important!

Push the limits of your vehicle. Try crashing it at faster speeds or tougher angles. At what point is your dummy no longer safe?



Our tips to avoid angry adults



DON'T

- 🤔 Don't use a real egg as your crash test dummy without asking.
- 🤔 Don't use a dummy that will become dangerous if it breaks.
- 🤔 Don't crash into windows, walls, or anything unsafe.
- 🤔 Don't use your siblings or pets as crash dummies.

DO:

- 😊 Clean up your crash scene.
- 😊 Ask for permission before using supplies.
- 😊 Pick a safe spot to launch your crashes!

2 Create a video of your solution.

Try to keep your video under 90-seconds long and include the following:

- How does your solution work?
- What materials did you use?
- Did you have to overcome any problems?

You can see tips to creating great entry videos [here](#).

Your video will be visible to anyone with an internet connection, so it's important to protect your privacy and stay safe. See our [website](#) for more information.

3 Enter the contest by 9:00pm ET on July 27, 2025.

Ask a parent to upload your video to our website using our [online entry form](#).

All contest entries will receive 1 point for our big end-of-the-summer prize drawing! You can earn bonus points for:

- Completing our weekly online STEM course - 1 point
- Entering an Epic Fail - 1 point
- Getting a friend to participate in their first ever Invent the Summer challenge (make sure they give you credit) - 5 points
- Completing 3 challenges in a row - 3 points
- Completing 5 challenges - 5 points
- Completing ALL 8 challenges - 5 points

4 View other solutions and VOTE!

You can see all the solutions and vote for your favorites from 12:00pm ET on Monday, July 28 until 3:00pm on Tuesday, July 29. See our [voting rules](#) for more

5 Winners announced around 8:00pm on July 29!

Audience Choice Award: Goes to the solution with the most online votes.

Board Choice Awards: Selected by the Junior Board of Engineers. Solutions will be judged on originality, execution, and presentation.

Epic Fail Award: Show us your failed attempts! This award goes to the most impressive failure of the week.

Winners receive their choice of an *Invent the Summer* t-shirt, bag, or notebook.