

# BUILD A FILM CANISTER ROCKET

## Materials

- One empty 35mm plastic film canister and lid (visit any store that has film developing and they will usually give you some of these for free. The white canisters work much better than the black ones do.)
- One fizzing antacid tablet (such as Alka-Seltzer)
- Water
- Safety goggles



1. Put on those safety goggles and head outside. No really, when this works, that film canister really flies! If you want to try the indoor version, do **not** turn the canister upside down in step 5.
  2. Break the antacid tablet in half.
  3. Remove the lid from the film canister and put a teaspoon (5 ml) of water into the canister.  
**Do the next 2 steps quickly**
  4. Drop the tablet half into the canister and snap the cap onto the canister (make sure that it snaps on tightly.)
  5. Quickly put the canister on the ground **CAP SIDE DOWN** and **STEP BACK** at least 2 meters.
  6. About 10 seconds later, you will hear a POP! and the film canister will launch into the air!
- Caution:** If it does not launch, wait at least 30 second before examining the canister. Usually the cap is not on tight enough and the build of of gas leaked out.

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The project above is a **DEMONSTRATION**. To make it a true experiment, you can try to answer these questions:

1. Does water temperature affect how fast the rocket launches?
2. Does the size of the tablet piece affect how long it takes for the rocket to launch?
3. Can the flight path be controlled by adding fins or a nosecone to the canister?
4. How much water in the canister will give the highest flight?
5. How much water will give the quickest launch?