

H2o Water Rocket Plans

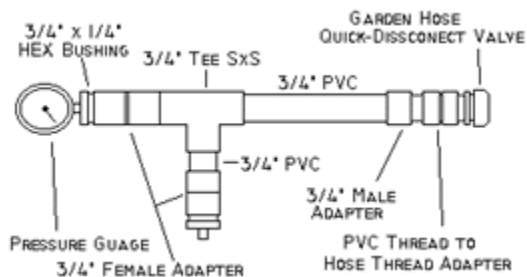


Water/Air Rocket - 1999

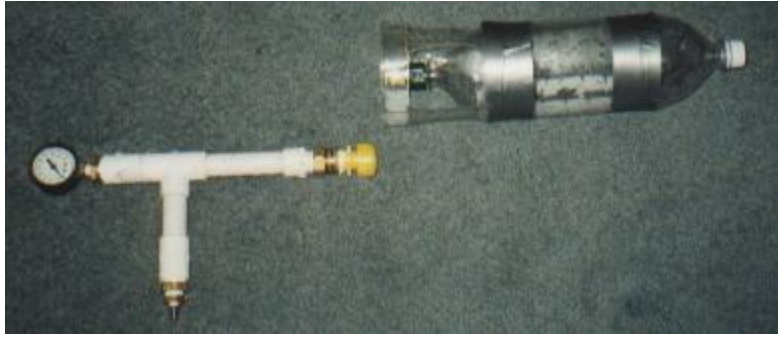
Overview

Well, it's summer, and in California it can get quite hot. Back when I was in middle school my friends and I were bored so we decided to make something that was fun for the heat. So I designed a water rocket. I had seen other web pages out there with water rockets, so I thought I would give it a try. The water rocket made here is pretty nice because it is hand-held, compact, has a finned projectile and performs quite well. The water rocket can shoot very far and stays up in the air for about ten seconds.

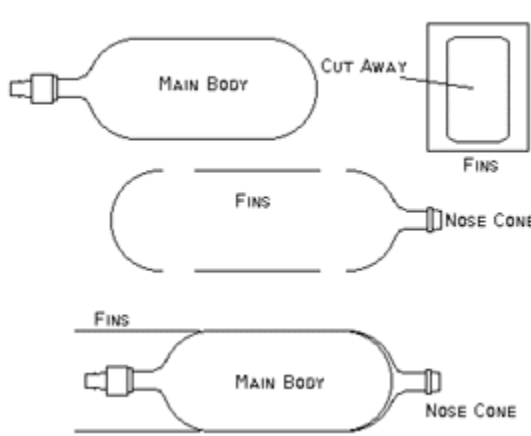
Launcher construction



The launcher is very simple to build. All that it consist of, is the gauge, fill valve, and quick-disconnect garden hose valve. The release mechanism is made with a garden hose quick-disconnect valve.



Rocket construction



The rocket itself, is made from two soda bottles. The first bottle, is the main chamber and the other bottle is used as fins and nose cone.

Get two soda bottles. Leave one aside, and cut the other one into segments as shown in the diagram. The nose cone, is to be taped to the main body. Make sure you leave the cap on the end. The fin segment must be cut into shape before taping to body. Cut away a segment in the fins section so it looks like the diagram (I know it is tricky, so look at the photos bellow for more info).

Next, you must make the nozzle. This is a tricky part, but it can be done. You must drill a hole in the cap the same size as the quick-disconnect male adapter. Then insert, and epoxy in place. This must be sealed well, otherwise you will have some major problems. Look at the photos bellow for more info.





Firing The Rocket

Fill the main chamber half with water. Connect the rocket to the launcher. Pump up the rocket to about 40 PSI (You can gradually get to higher PSI, if needed). Hold the rocket, and pull down on the quick-disconnect valve. The rocket should shoot out a stream of water and fly very high in the air. NOTE: You may not want to "eye" or aim the cannon, you will get shot in the face with water.