

THE FLYING PANCAKE!

This is one of the coolest and easiest to build odd rocks I have ever seen. It fly's straight up with just a little wobble to it. I can't remember the first one I had built. It was when I was a kid back in the late 1960's. This version fly's using a 24MM Estes motor. It fly's about 300 (I'm Guessing Here) feet with a D12-0.

If you want to down scale it you can all the way to the Micro-Max level. Those are really fun.

This is not my original design but I have no idea who designed it. It is an old design but still very flyable! The original used card board for the pancake so I have updated it a bit. If you really want one that will last forever, use light plywood instead of foam board.

Parts List:

- 1 six inch square piece of 3/16" foam board (Hobby Lobby carries Black Or White)
- 1 3 inch piece of T-50H body tube (Get This From Balsa Machining Service)
- 1 3/16 inch launch lug 2 inches long
- 1 1/4 inch long piece of used D engine to use as an engine block. Leave it out if you want to fly it on an E9!

Other things you will need:

- Scissors
- White glue
- Rubber cement
- Hobby knife
- EX-fine sand paper

Instructions:

1. Print out the template making sure that the outside diameter is 6 inches and the inside hole is 1 inch. Different printers print differently. Or use a compass to make the circles.
2. Carefully cut out template on outside black line. Do not cut out center hole.
3. Using the rubber cement lightly coat what you want as the top of your Flying Pancake and center your cut out template on the foam board.
4. Let dry completely.
5. With your hobby knife carefully cut out your pancake. I suggest you cut the outside first. Then do the same for the center hole. The center hole is best if it's a little tight at first. Gently peel off template
6. Test to see if your T-50H fits. Lightly sand the hole till it is a snug fit.
7. Using a straight edge draw a pencil line down the length of the T-50H. Glue the launch lug along this line level with what will be the top of your engine tube.

8. Cut a small "V" in the center hole of the pancake large enough to allow the launch lug to pass through.

9. After the glue has dried on your launch lug, take the 1/4 inch piece of used D engine and glue it even with the top of your engine tube. This is your engine block. Leave it out if you want to fly it on an E9!

10. After everything has dried completely it is time to insert the motor tube into your pancake. Do not force anything it should just be snug. Sanding a little, testing fit, sanding a little more until everything fits.

11. Using your workbench as level, put the pancake on the bench inset the motor tube engine block first, and run a bead of glue at the junction of these two parts. Let it completely dry. Then do filets along the sides of the launch lug. Let everything dry completely.

12. There you have it a flying pancake. Paint if you want.

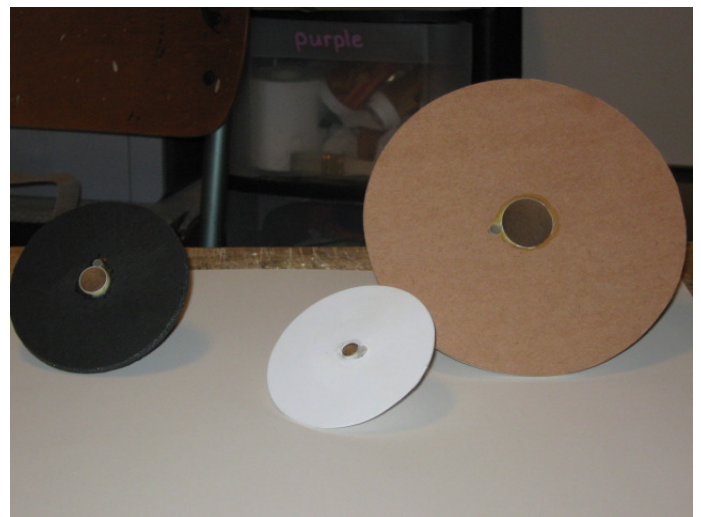
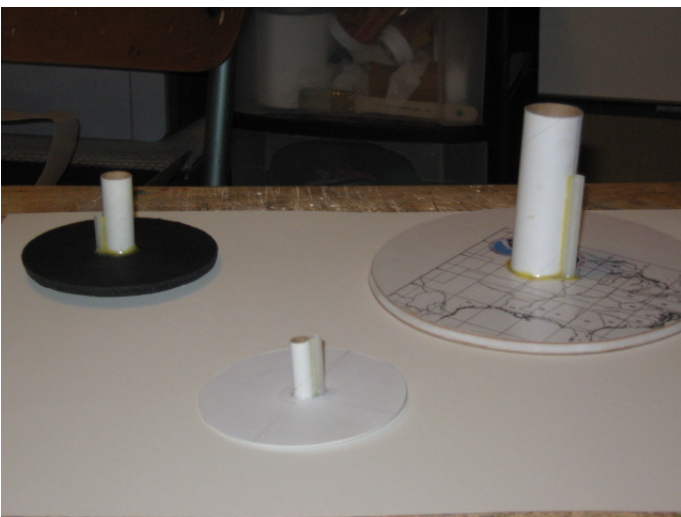
Suggested Engines:

All Engines really need to be 0 engines if you have them. Next best is a very short delay or the ejection charge will pop when the Flying Pancake is on the ground possibly starting a ground fire. Make sure you use masking tape to hold the engines in. A slight wobble as it fly's under power is normal. Follow all NAR Rules!

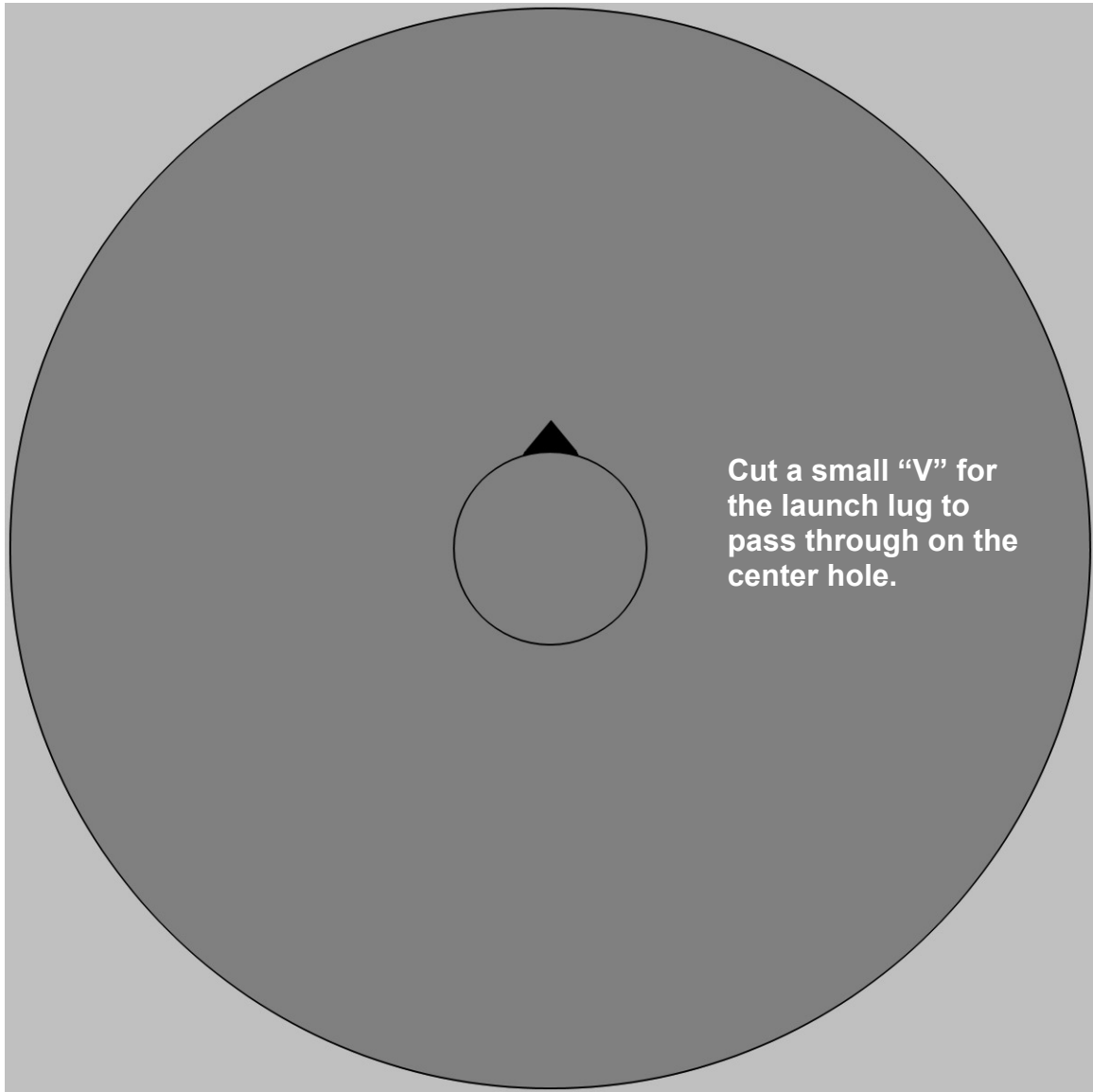
If you can find C11-0 or if you can't D12-0

C11 will give you about 150 feet altitude.
D12 will give you close to 300 feet altitude.
E9 ?

Some Of My Flying Pancakes



**These are from left to right. 13MM, Micro-Max, and 24MM Pancakes.
These have all flown three times.**



Please understand that you use this and all my plans at your own risk. I cannot take responsibility since your parts may be different from mine. One other part that is not on the part list is common sense. I have found that this keeps me out of trouble and is the most important of all the parts in any rocket!