

FLIP in a Bucket

See For Yourself How FLIP Works and Why It Is Special!

Follow these directions to make a working scale model of Scripps Institution's Floating Instrument Platform and a regular surface boat so you can compare how they behave at sea.

What You Will Need:

FLIP: drinking straw, toothpick, clear tape, clay or Play-Doh, salt, permanent marker, two paper plates

BOAT: cork cut in half as shown, toothpick

TANK: 2-liter soda bottle with top cut off, or an old aquarium, or a bucket.

What To Do:

Construction:

FLIP :

1. Estimate the lengthwise center of the straw and mark it with a permanent marker.
2. Looking at one half of the straw, estimate thirds (three pieces), mark the thirds with a permanent marker.
3. Make the last mark closest to the end of the straw a bigger line than the others. This is the "waterline."
4. Write "FLIP" on the side of the straw near the same end.
5. Tape a toothpick mast to the same end.
6. Plug the other end with clay or Play-Doh.
7. Fill the interior of the straw with salt to a little more than $1/2$ full. A paper plate folded in half makes it easier to pour the salt into the straw.
8. Your FLIP should float with the waterline at the surface. Add or remove salt in small amounts to trim the depth (make the waterline mark on FLIP match the surface of the water). Be careful not to let FLIP sink too low and flood!