

EVA simulation using ROVs

Expedition 53/54

**Installing
HD camera,
camera,
and
changing a
fuse.**

You will
need

Tools & Materials

- (1) Industrial Velcro 2" x 4" (roll)
- (1) Corrugated plastic 18" x 24"
- (1) Mini storage crate
- (1) Cable ties 8" (package)
- (1) 8" CPVC pipe
- (1) ½" PVC cap
- (1) 40" of ¼" Polypropylene rope or 4 pipe cleaners
- Locknuts or something to create ballast (fuse)
- (1) Duct tape
- (1) Paint (optional) to differentiate the fuses
- Drill, screwdriver, or something pointy to do a hole on corrugated plastic.
- (2) Small plastic food storage containers (different sizes recommended)
- Fender washes or something to create ballast (food containers)
- (1) Hot glue gun and sticks
- (1) Epoxy or marine silicone
- Ruler
- Marker
- Knife
- Scissors
- Pipe cutter
- Drill & drill bit
- Screwdriver

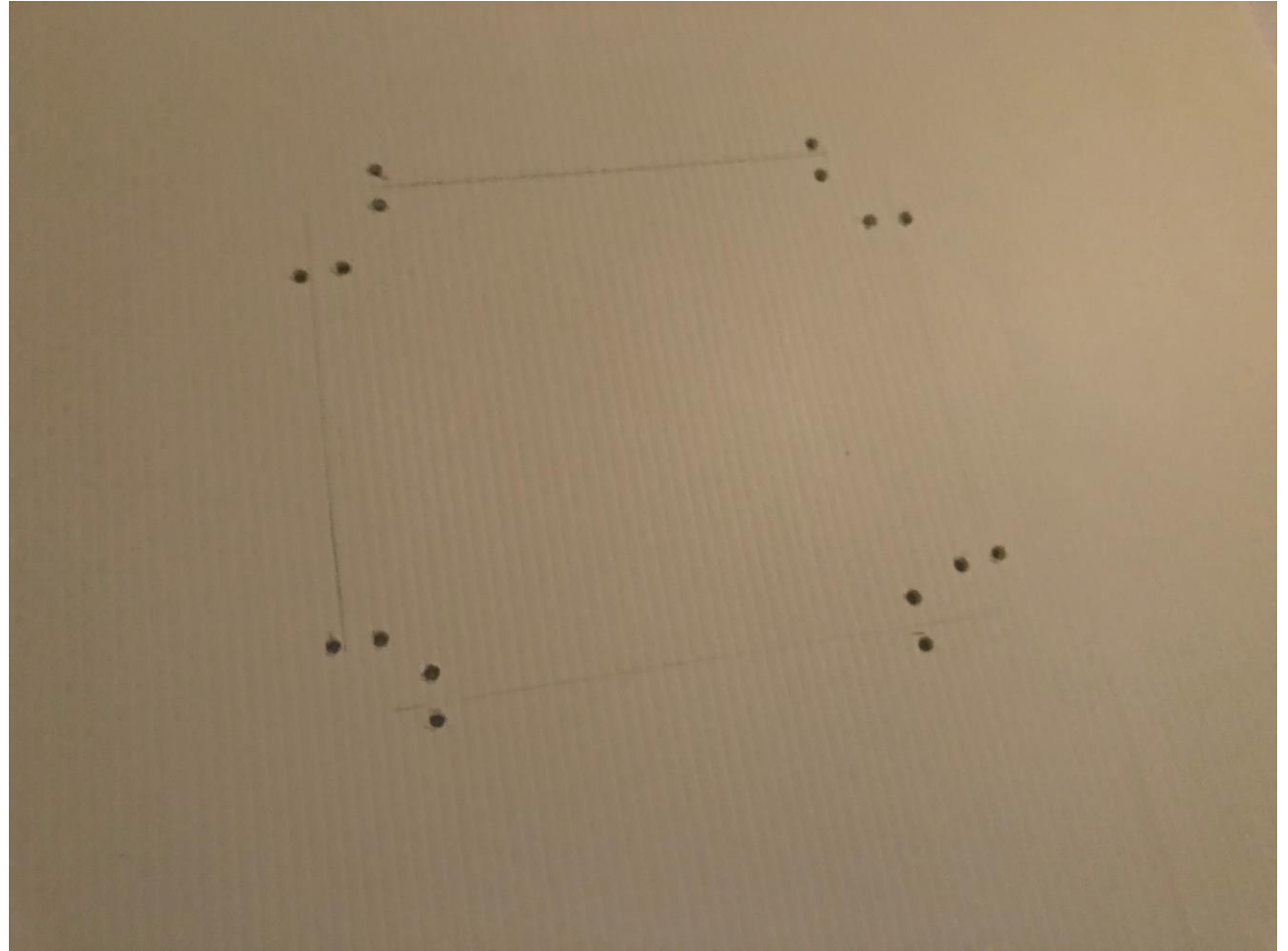
Take the corrugated plastic and center the mini storage crate. Draw a line around the crate. Next to each hole in the corners, draw a mark.



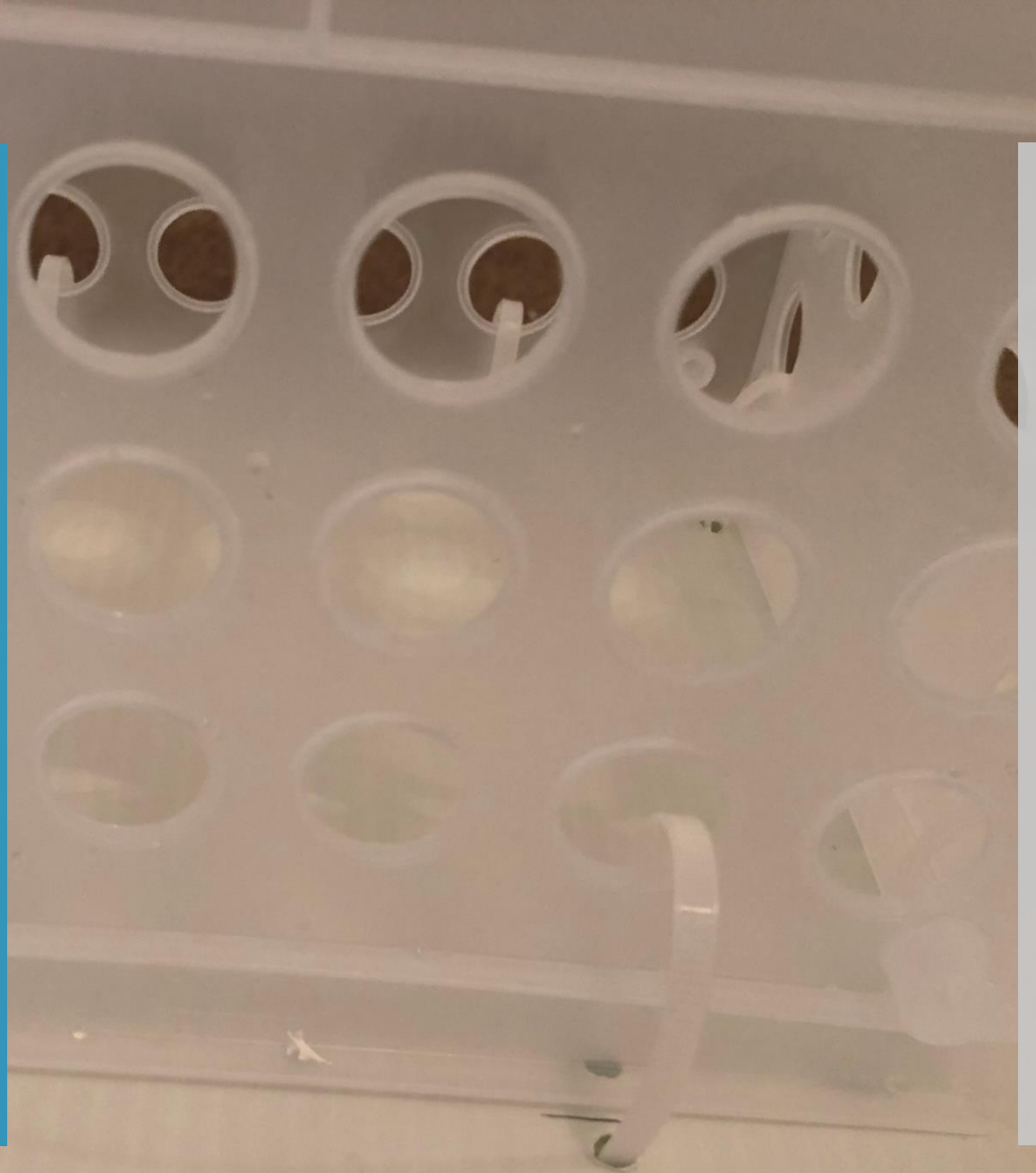
Remove the crate measure approximately $\frac{1}{2}$ " and draw a second mark. It should be one mark inside the crate and the other outside.



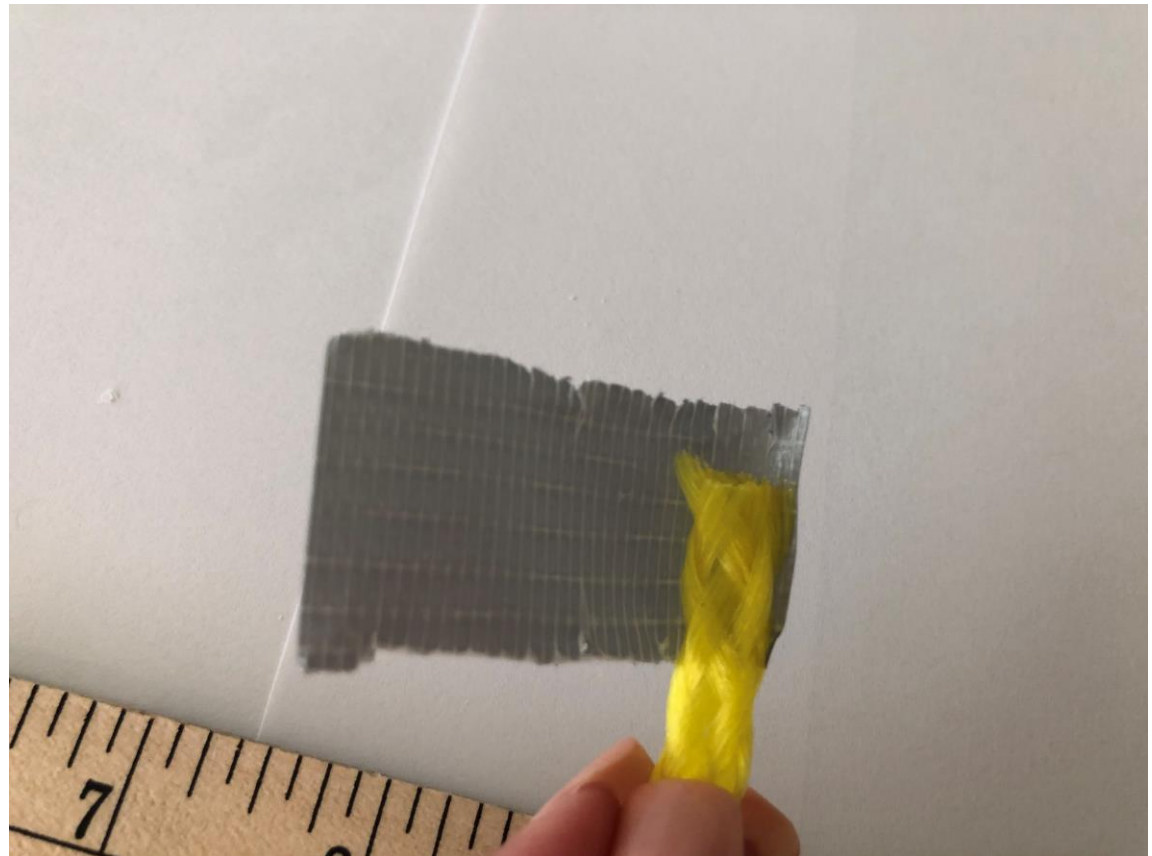
Drill a hole in each mark. You can use a screwdriver or something pointy to do the hole.



**Attach the
cable ties and
join the crate
to the
corrugated
plastic.**



Measure approximately 8" of $\frac{1}{4}$ " Polypropylene rope and cut four pieces. You can also use 4 pipe cleaners. Be free to change the measure of the rope because it will depend on the size of your container.



Cut a piece of duct tape and put it at each end of the rope.

Take the food container and drill holes in each side. Pass each end of the rope through the container. Join both ends of the rope with a piece of duct tape.



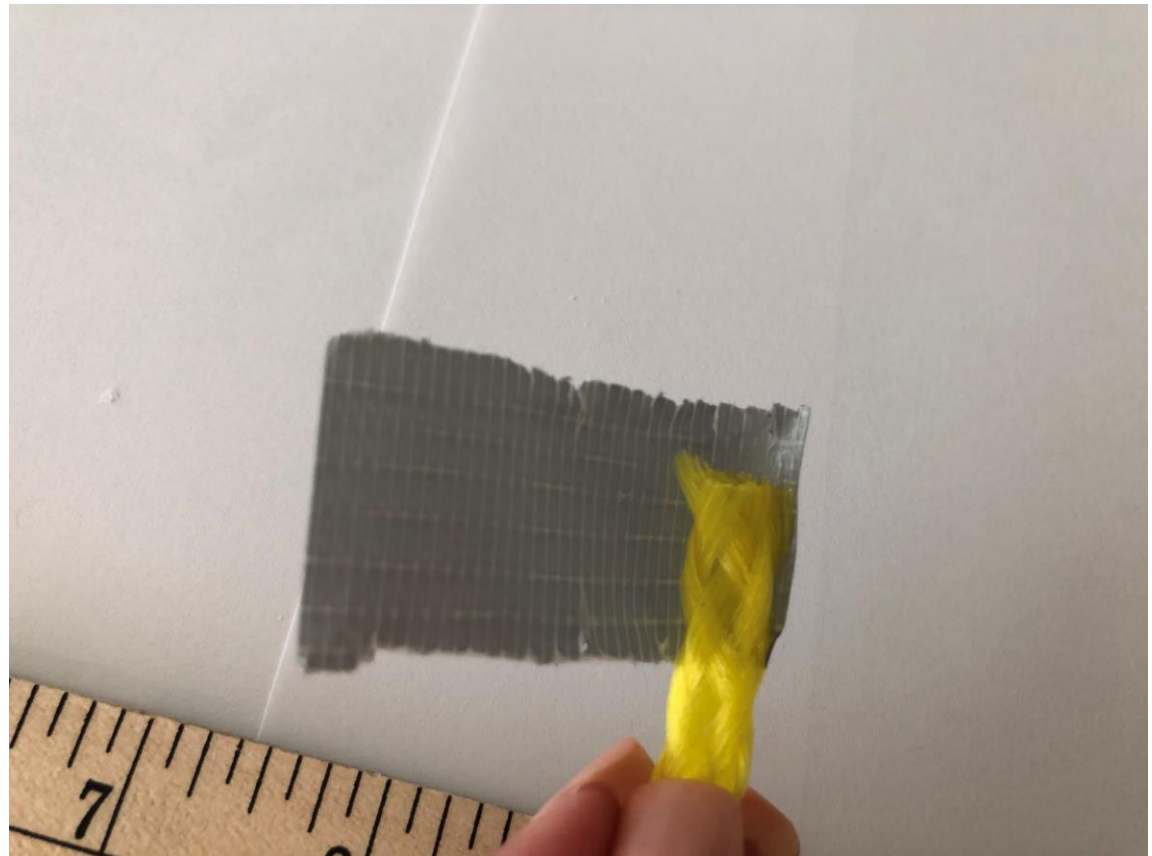
Take the lid and glue the lens of the camera (water bottle lid or magnetics tins) to the lid.



Once the lids are dry, put some fender washers or something heavy to create ballast and close the container.



Measure approximately 8" of 1/4" Polypropylene rope. Cut and attach duct tape at each end.





Take a ½" PVC cap and drill a hole in the middle. Attach the rope to the cap and secure it with duct tape.

Cut 8" of CPVC pipe. Insert the CPVC pipe in the crate (next hole after the corrugated plastic) and secure it with cable ties.



Cut six pieces of 2" x 4" of Velcro. Attach to the back of the corrugated plastic in two rows of three, leaving 4" between each Velcro. Be sure that the Velcro side is the opposite at the one that is on the test tank, so it can match.

Glue a piece of 2" x 4" of corrugated plastic to the back of the containers. Once is dry, attach the Velcro to the corrugated plastic.

Take 2 pieces of 2" x 4" of corrugated plastic and attach the other part of the Velcro to it. Use hot glue to attach one piece of corrugated plastic to the crate (middle) and the other to the top.