Testing for Buoyancy

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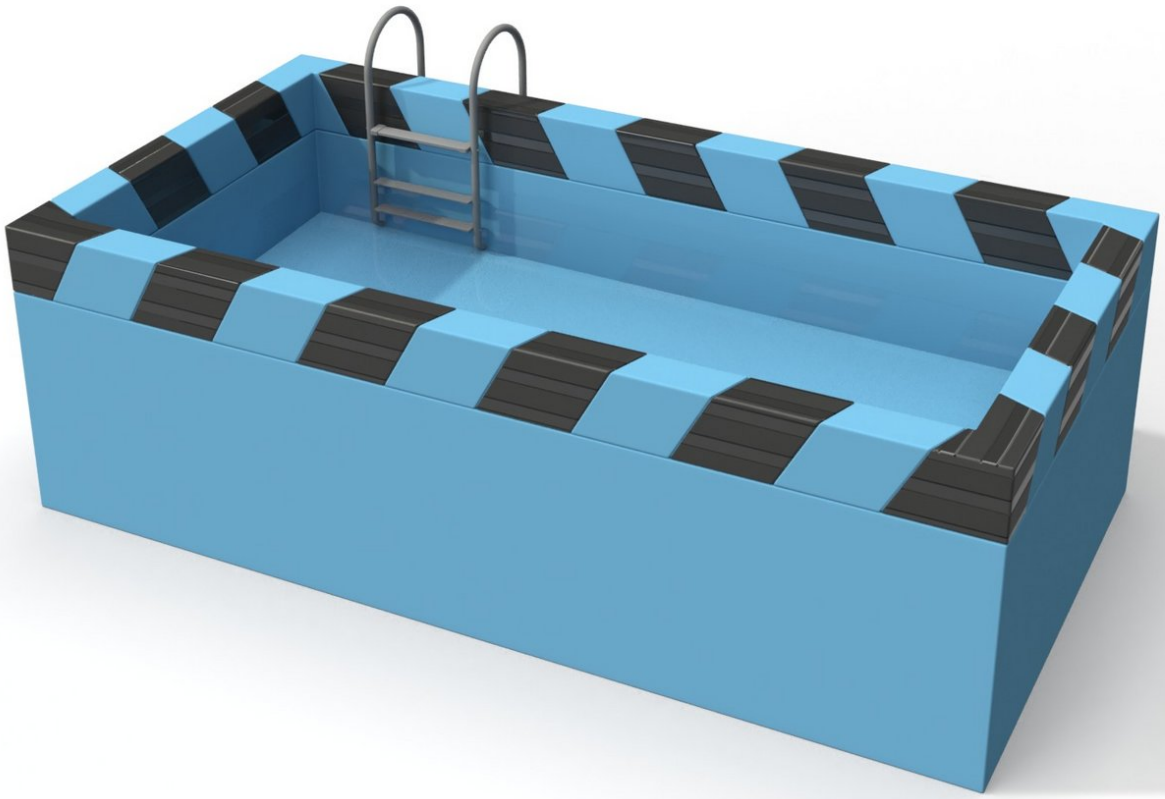

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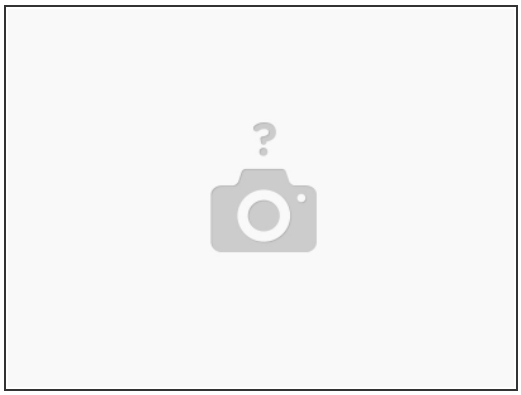
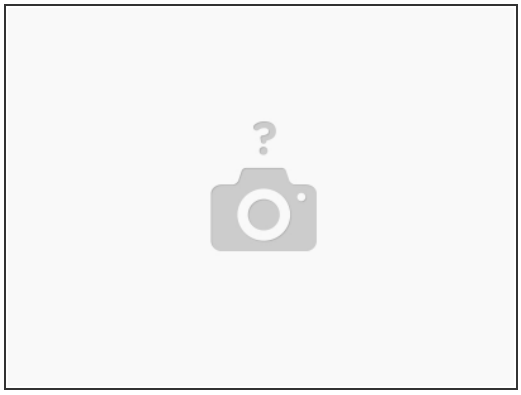
Step 1 — Testing for Buoyancy



- Remembering back to the initial buoyancy theory, you should opt for either a neutrally or slightly positively buoyant ROV.

Step 2



- When submerged, ensuring all the air has been allowed to escape from the frame, the ROV will do one of three things.
- It may sink, showing the properties of a negatively buoyant ROV.
- New line.
- It may float towards the surface, displaying positive buoyancy.
- Or, although unlikely on your first attempt, it may stay at the depth it was placed at, showing neutral buoyancy.

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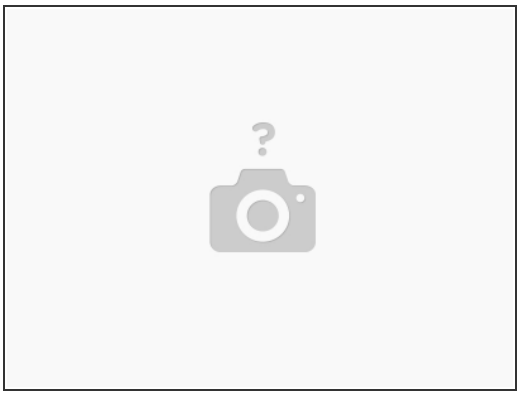
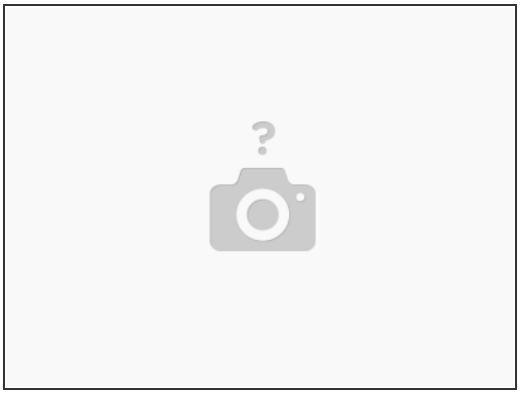
Step 3



- Depending on your desired type of buoyancy, you may need to add or remove ballast from your ROV.
- This can be done by using the same techniques featured throughout this guide.
- Despite the initial calculations, this may still take some trial and error to perfect, however the time should be taken as the buoyancy of your ROV is one of the key elements to a functional ROV.

Step 4



- It is also essential to properly distribute the ballast evenly across the body of the ROV, to balance the mass of all components accordingly.
- Depending on the design and distribution of mass across your ROV (example motor location) you may need to add additional ballast to keep the front or rear of the ROV from diving.

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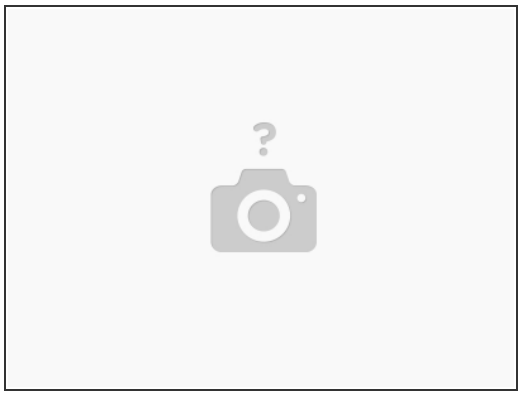
Step 5



- Additionally, depending on the length of your tether, you may need to add ballast to the cable itself as it is a component with mass.
- This can be done by attaching ballast at even increments across the length of submersed cable.

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