

Material:

Item-no.	Qty.	Description
DM480-1U	1	Submarine boat, model
C7447-1G	1	Water Tank, 230x150x105 mm, plastics

Purpose

Rise and descent of a submarine by changing the average density of the submarine.

Preparation

- fill the tank to $\frac{3}{4}$ full with water
- the plunger of the syringe is pushed in completely
- connected the submarine and the syringe with the hose

Experiment

The plunger is slowly pulled out of the syringe and afterwards pushed in slowly again.

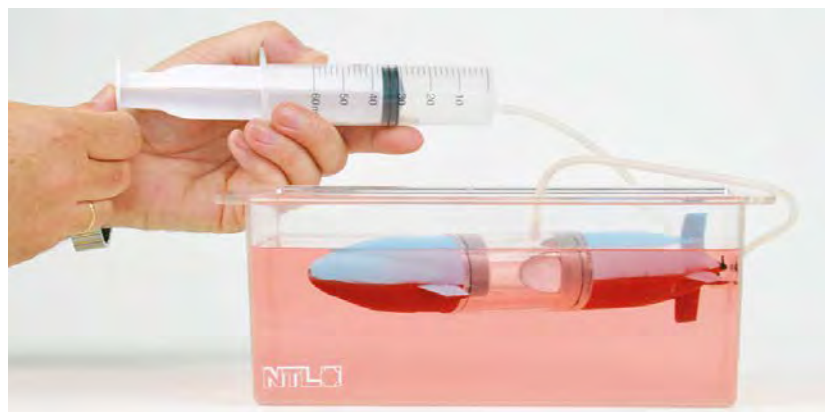
Result

By pulling out the plunger air is sucked out of the submarine. The density in the boat becomes higher.

This causes the submarine to descent or "dive".



If we push more air into the interior of the submarine it rises again.



Note

Inside the submarine the water pressure pushes the air out of the room when a valve or tap is opened. In order to get it in and to displace the water it has to be compressed accordingly.