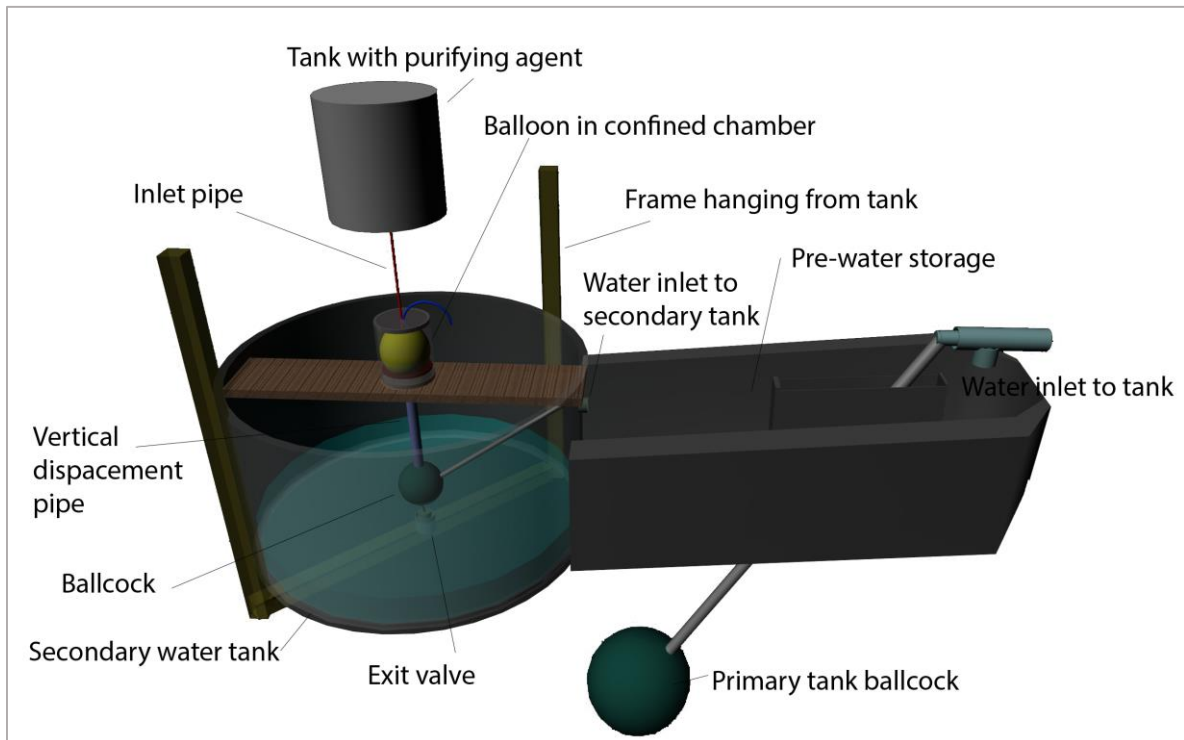


# BUOYANCY OPERATED INJECTING SYSTEM (B.O.I.S) FOR PURIFYING WATER IN DEVELOPING COUNTRIES

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This is a design of mechanical water purification system for poor people living in developing countries who often have to drink non-purified water causing various water-related disease. Buoyancy operated injecting system (B.O.I.S.) is a mechanical injecting system which works on the principle of buoyancy and it can be applied in overhead tank for water purification. BOIS system is shown with its component in diagram above. BIOS can be fitted in a hanging compartment. The hanging compartment collects the water in a small tank (Secondary tank) within big tank (primary tank). Secondary tank store water while purifying agent is added to this batch of water and later purified water is dispatched into primary tank through exit valve. In secondary tank, with rise of water, the ballcock rises. The ballcock is connected to a plastic pipe which pushes the balloon inside a confined chamber resulting in injection of liquid purifying agent. With further rise of ballcock, the valve at bottom of secondary tank opens and purified water exit to the primary tank. The concentration of chemical can be set based on capacity of balloon. This idea can provide better health and opportunities for the people living in developing countries. The system can inject any cleaning agent prescribed for purification of water by the local authorities. (Ex, chlorine powder).

## FEATURES:

- Does not requires electricity
- Makes overall purification process semi-automatic.
- Need to fill water purifying agent once in few weeks.
- Cost effective
- Can be assembled and repaired by non-skilled persons

## OTHER PROJECTS

