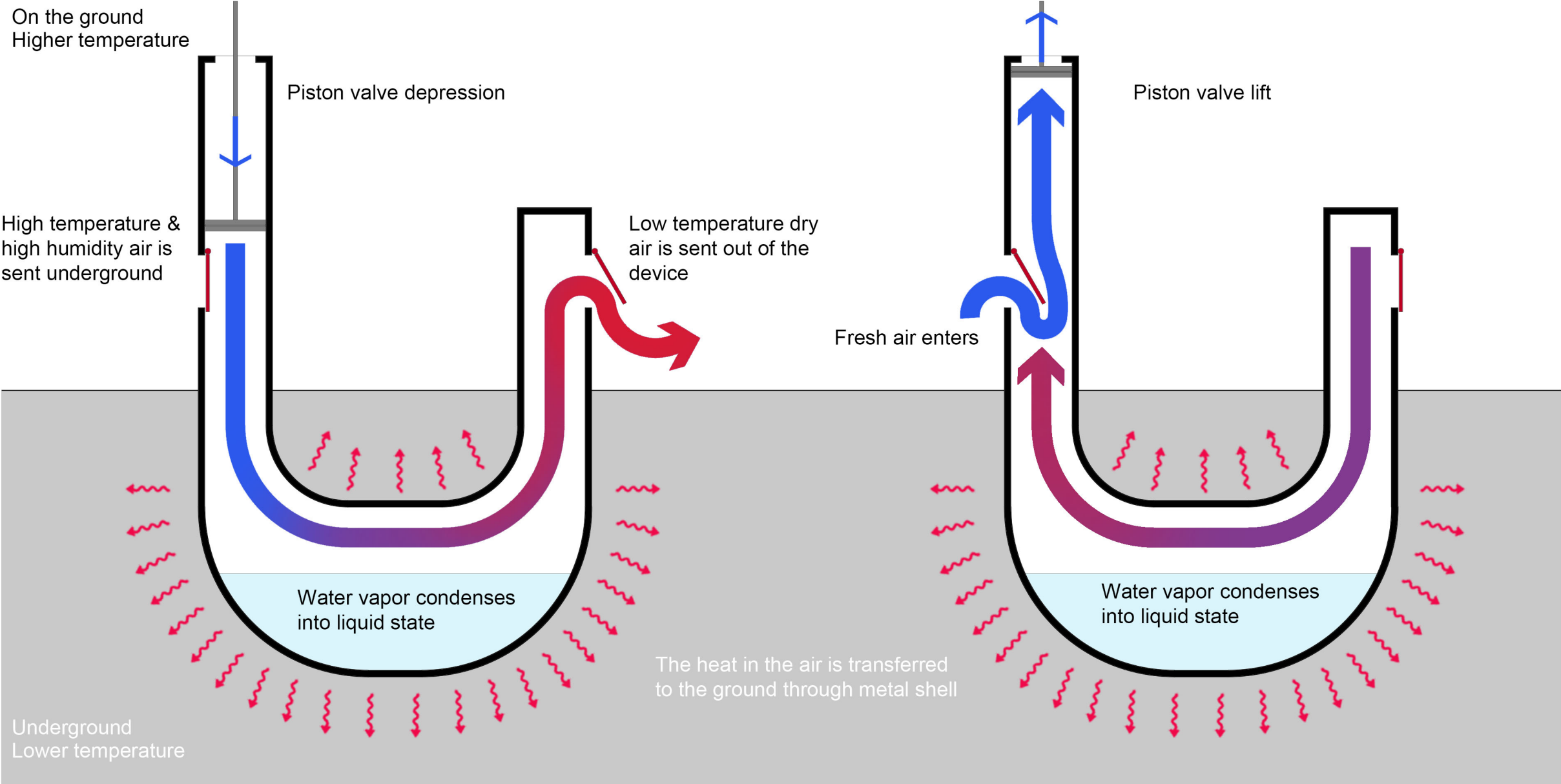


# FRESHWATER COLLECTION SYSTEM

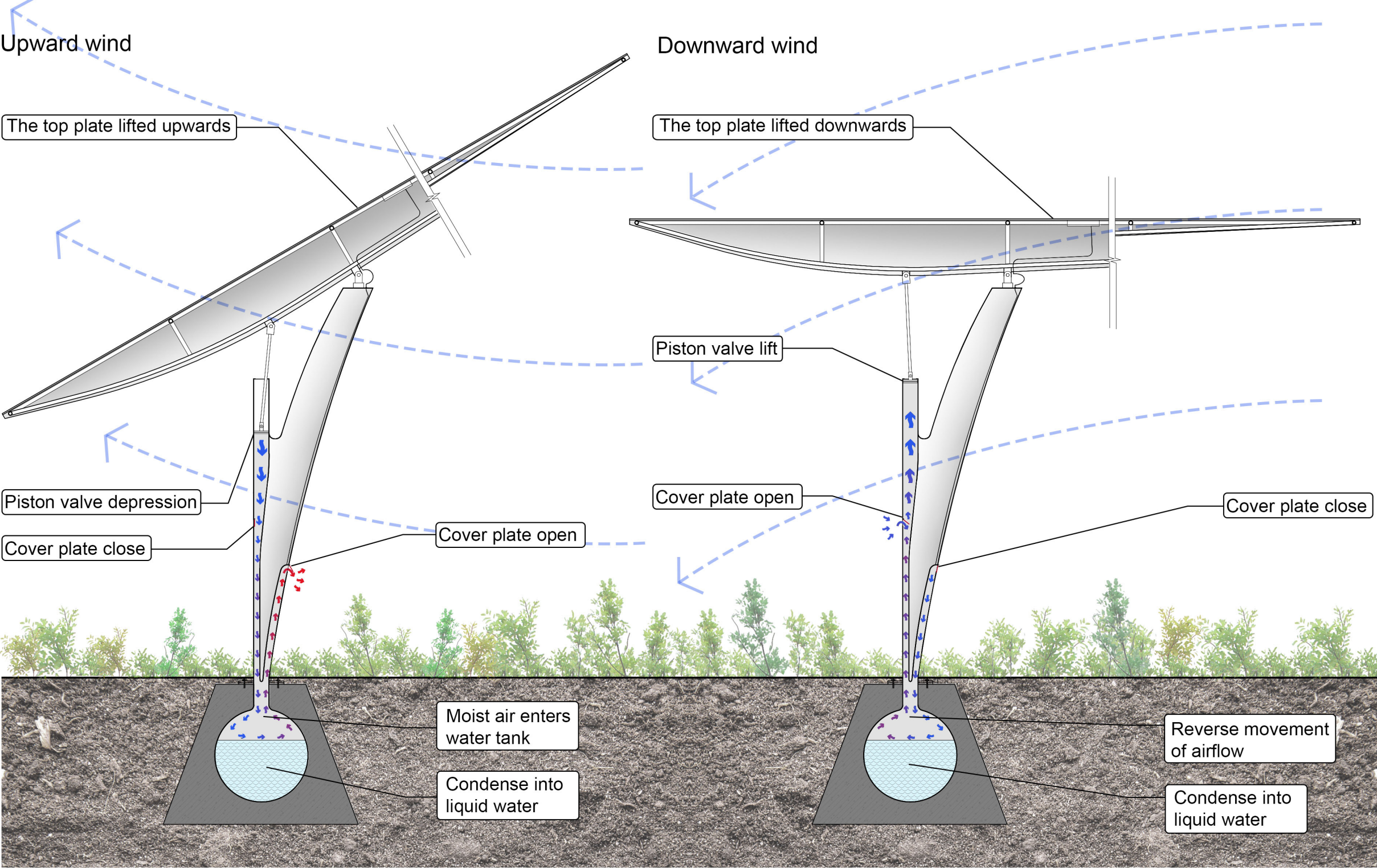
## Principle of The Device

After the high-temperature and high-humidity air is cooled down, the water vapor becomes saturated and condenses into liquid water. The device takes advantage of this physical phenomenon, using the water vapor in the air as a source of fresh water. The device can be simplified as a pipe leading underground, where the temperature is lower than that above ground. Once the air is introduced into the underground part of the device, the water vapor condenses into liquid water.



## Air Distribution

The wind drives the movable top plate, which in turn moves the piston in a reciprocating motion. It continuously draws in high-temperature and high-humidity air from the outside through pipes and sends it into an underground water storage tank. The water vapor in the air condenses into liquid water under the low-temperature conditions underground and is stored in the tank, awaiting use by the user.



## Harvest Fresh Water

When fresh water needs to be harvested, a portable water pressure device can be fixed next to the device, and a hose can be inserted through the ventilation hole to press the water pressure device to extract fresh water. Residents can then extract the water stored in the device.

