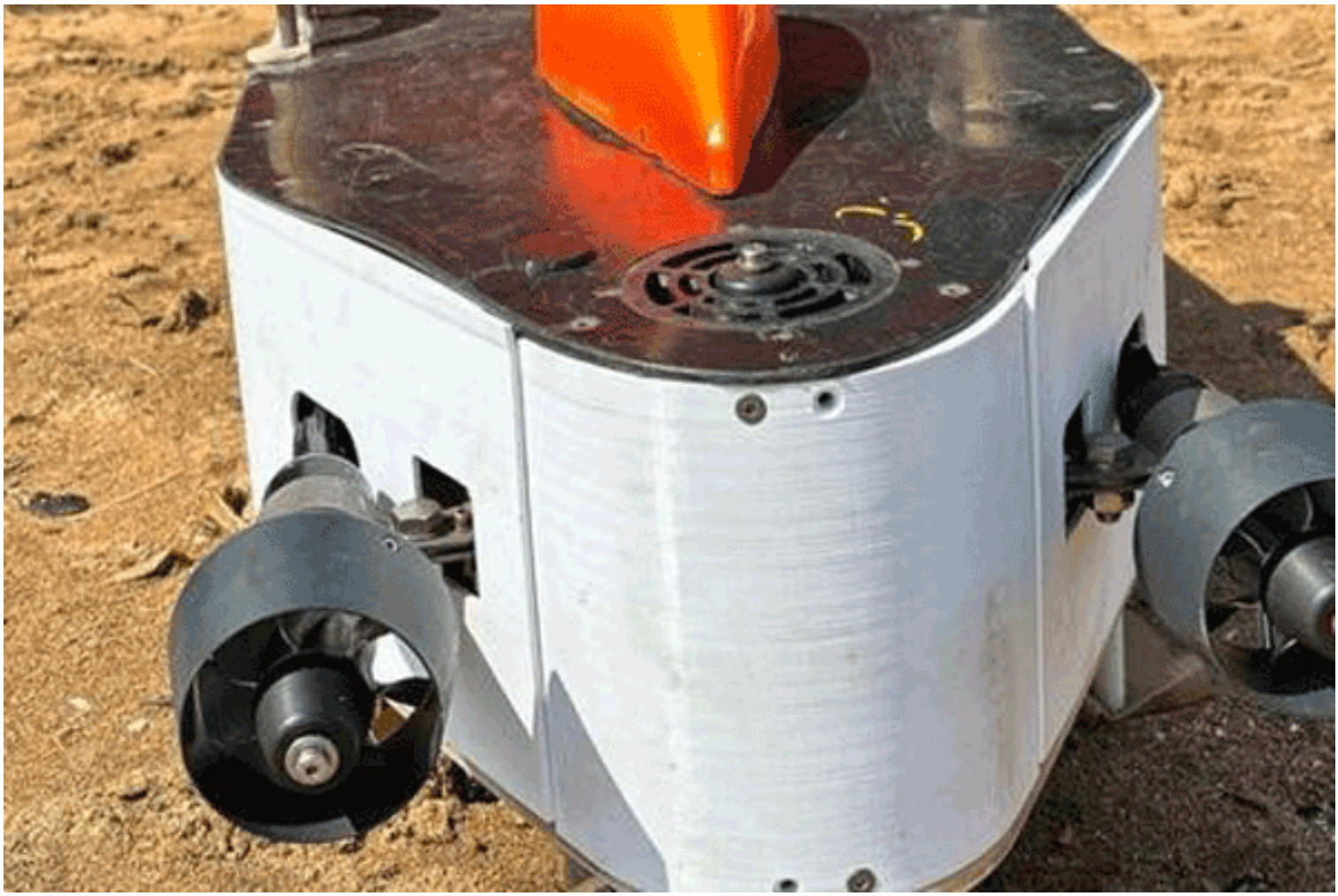
C-bot

By IASToppers | 2024-01-31 15:15:00



C-bot

The **C-bot** was recently launched by the Goa-based **CSIR-National Institute of Oceanography (NIO)**.

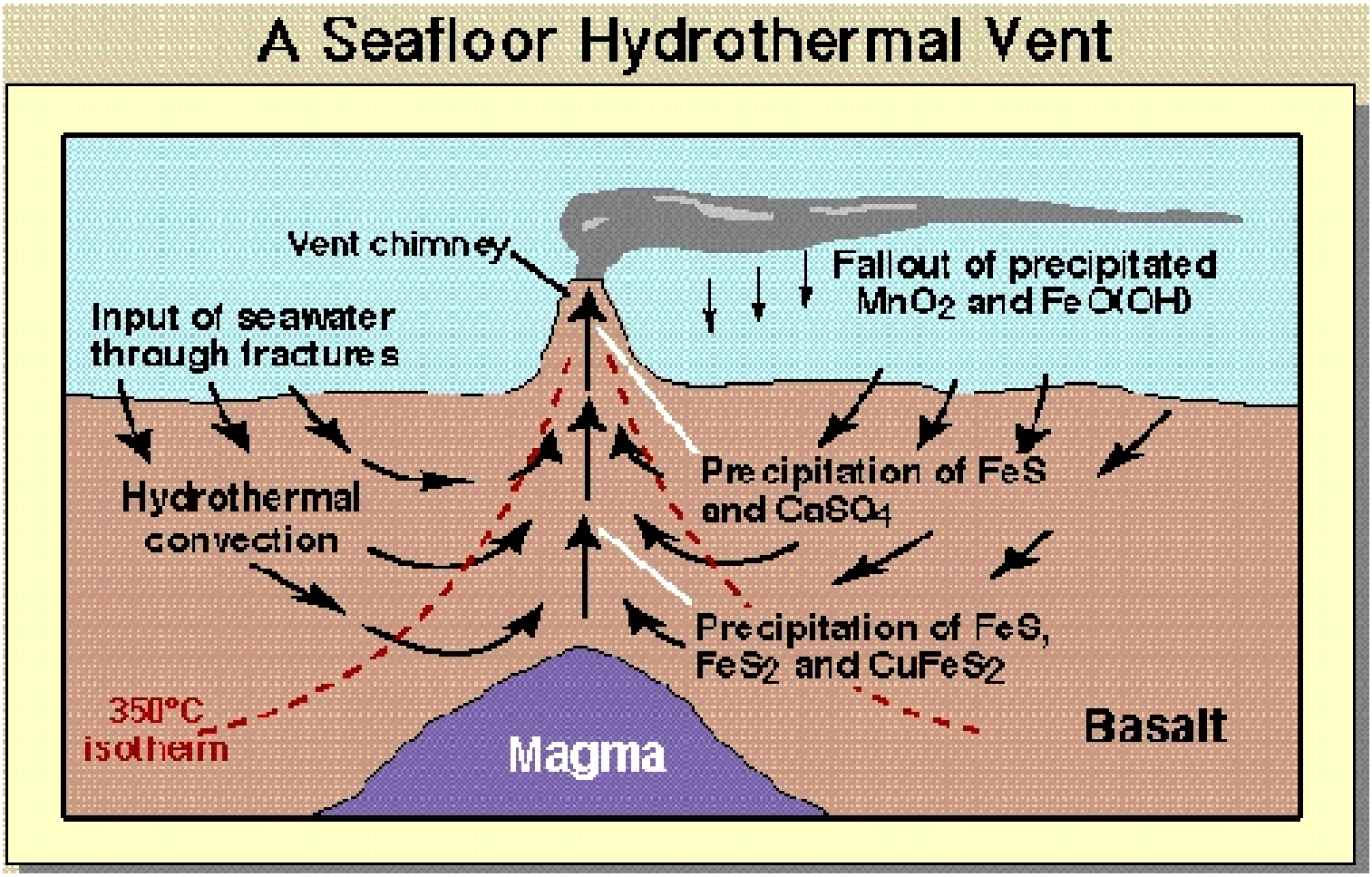
[ref-ET news]

About the C-bot:

- The C-bot is an **autonomous underwater vehicle** that will aid in monitoring **coral reefs**, and will provide insights into **coral bleaching** causes related to climate change.

Key Features of C-bot:

- It can reach a depth of **200 meters**, with plans for further development to explore **thousands of meters** into the sea.
- It is equipped with **various sensors** and **cameras** to measure underwater parameters and conditions.
- It will assist in **bathymetry studies** for the Indian Navy, and will aid in plotting navigation channel and exploration of **hydrothermal vents**.
    - **Bathymetry** is the study of the "**beds**" or "**floors**" of water bodies, including the ocean, rivers, streams, and lakes.
    - **Hydrothermal vents** are **fissures** on the **seabed** from which **geothermally heated** water discharges.
- It will explore active hydrothermal vents, which release significant elements into the ocean and support unique biological ecosystems in extreme temperatures up to **400-500?C**.
- It is capable of sending **real-time data** and **photographs** to support ongoing research efforts.



[ref-Quora]

