

# Forabot

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**In news**– Recently, researchers at North Carolina State University, USA have developed and demonstrated a robot capable of sorting, manipulating and identifying microscopic marine fossils

## **About the robot-**

- It is capable of sorting, manipulating and identifying microscopic marine fossils. Such fossils are key to understand of the world's oceans and climate of today and in the prehistoric past.
- The team of engineering and paleoceanography experts developed the robot, called Forabot, to automate the sorting of forams.
- Physical inspection and sorting of forams can require human time and effort.
- **Forabot has an accuracy rate of 79 per cent for identifying forams**, which is better than most trained humans.
- **Currently, Forabot is capable of identifying six different types of foram** and processing 27 forams per hour.
- The **robot's AI uses images to identify the type of foram and sorts it** accordingly. It has the potential to be a valuable piece of research equipment, allowing student 'foram pickers' to spend their time learning more advanced skills.

## **Note:**

- **Foraminifera**, also **called forams**, are **very simple micro-organisms** that secrete a tiny shell, a little longer than a millimetre.
- The organisms have existed in our oceans for more than 100 million years. When forams die, they leave behind their shells.

- Examining their shells give scientists insights into the characteristics of the oceans from a time when the forams were alive.
- Different types of foram species thrive in different ocean environments and chemical measurements can tell scientists everything from the ocean's chemistry to its temperature when the shell was being formed.