



Nemo's specialised transport boxes minimise the amount of time the young corals are exposed to differing water temperatures and pH mixtures | Photo source Nemo

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LARGE-SCALE CORAL RESTORATION PROJECT INCLUDES GLOBAL MONITORING PLATFORM

 SUSTAINABILITY

A smart transport box protects young coral during transport between farm and reef

Spotted: Industrial designer Elias Thaddäus Pfuner has created a coral restoration system called Nemo that significantly refines the out planting process and gathers worldwide data into a single reef health monitoring system. Nemo consists of four innovative processes. Drones observe conditions and collate data about reefs around the world. The information is shared online, making it quicker and easier for scientists in any country to check in on projects. The footage also contributes to mapping projects that help assess reef health.

Once young corals are ready for transplant into a reef, Nemo's specialised transport boxes minimise the amount of time they are exposed to different water temperatures and pH mixtures. The temperature and pH values inside the transport boxes are customisable, allowing scientists to swiftly react to changes in conditions.

After a team is on the water and near the reef, the drones deploy as carriers, taking the corals directly to the transplant location. The drone also carries a drill to speed the time it takes for each implantation. Nemo's system so significantly reduces the time intensity and complicated labour processes of coral planting that each round of work on a reef now requires only two to three people, rather than the traditional ten or more. If enough agencies begin using Nemo, the small scale of current coral restoration projects could significantly increase, ideally halting the ongoing rapid decline of this essential environment.

Other methods Springwise has spotted that care for the world's coral reefs includes a paper pulp made from harmful seaweed and 3D-printed reef tiles that encourage natural regrowth.

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Takeaway:

Coral reef degradation and loss are occurring **at a rate** faster than the decline of rainforest habitats. The scale of today's global environmental emergency is so great that it is easy for individuals to feel overwhelmed. Rather than give up and do nothing, however, it may be useful to consider the vast numbers of organisations and projects working to halt, reverse and prevent further damage. Springwise has spotted scores of innovations to follow and support. Every action, from choosing a reusable coffee cup to no longer buying new clothes, contributes to a more sustainable future.