

This is a self-propelled boat capable of taking on the role of bridges

Thanks to 3D printing, the production of prosthetic limbs, small EV parts, and even space travel all benefit from low-cost products.

Taking advantage of this technology, a team of researchers from MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL) created an entire fleet of self-driving boats, opening up a fascinating view into the future of autonomous transport.

Self-driving 3D printed boat

Unlike other bendable boats, these 3D printed boats have a rectangular structure - an innovative design feature that allows it to move freely in both directions, attaching to objects. Another, and most especially, is how many boats come together to create floating bridges or platforms for water music events and mobile food markets. To do this, the researchers printed a rectangular hull and connected 16 different hulls into a long chain. They are very flexible and have good strength thanks to 4 well-positioned thrusters and can glide smoothly on the water. Each hull measures 4 x 2 meters, is equipped with a power supply, mobile and radio frequency phases, and a Wi-Fi antenna.

"Imagine we can turn some of the infrastructure services that often take place during the day on the road - like delivery services, waste and waste management . - to midnight, on the side water, using an army of self-propelled boats" - Daniela Rus, director of CSAIL said. In addition to minimizing traffic congestion, an important benefit of 3D printing boats is its autonomy: transportation operations that require human control can now be independently controlled, carrying again the potential to reduce river related accidents.

Of course, much remains to be done before these boats are officially put into service. The team understands the big difference between people and the types of goods to transport. The transition from 3D design to real product will require thorough testing, especially the ability to locate and navigate. They have already tested small-scale freight transport, but the challenge now is whether the algorithms controlling those 3D boats will still work correctly as their size increases.

Reference: Engadget

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