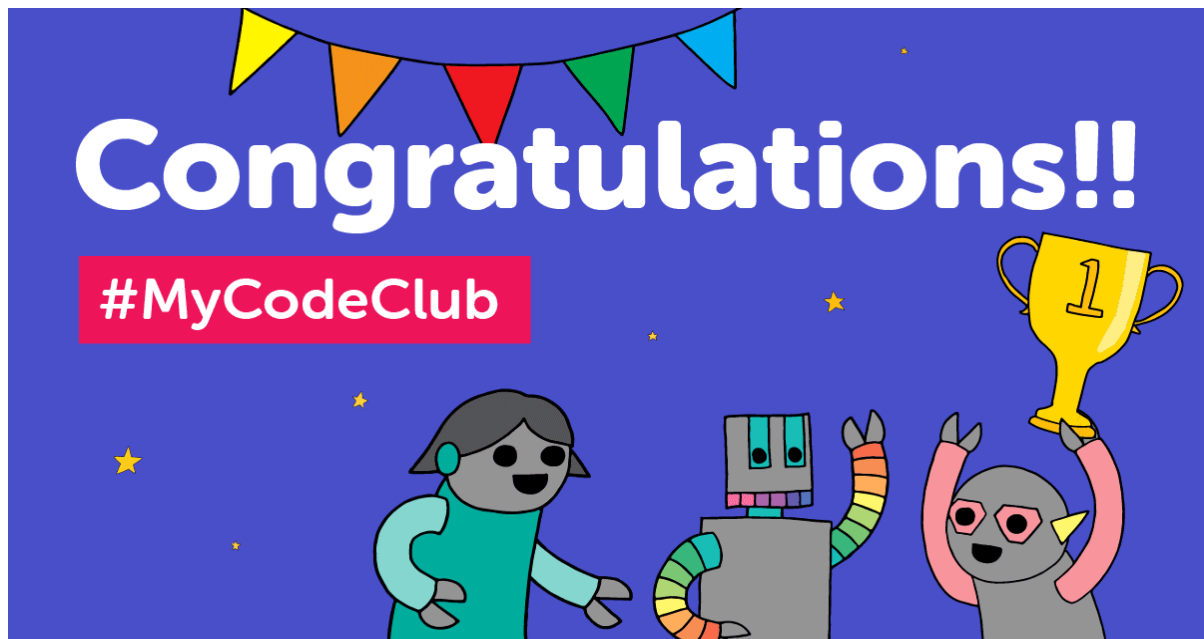




Six pupils from Codeclub designed and ran an experiment on the International Space Station. The experiment was part of the Astro Pi Life on Earth Challenge and looked for macroplastics in the ocean. Macroplastics are visible pieces of plastics, such as bags, packaging and xxxxx. Algae and seaweed grow on the plastics and form rafts that can be several kilometres across.

The club started by using the schools 3d printer to build a fully working and programmable copy of the camera on the Space Station. The team learnt how to program the camera to take high quality photographs and add the location to the image. The experiment ran for three hours and produced several hundred images.

The team wrote a second program that used their knowledge of arrays and averages to highlight the seaweed rafts and then used machine learning to sort through the images for seaweed rafts.

The team successfully found rafts off the coast of Brazil.

This is the fifth year we have entered the challenge previously we have looked for microplastics, created stereoimages, and calculated the altitude of the space station.

https://www.esa.int/Education/AstroPI/Astro_Pi_Mission_Space_Lab_2021_22_The_Winners