

Drones

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Drones

Introducing Drones

A drone is a vehicle that does not have a human pilot or driver on board. Some drones are operated by a person on the ground using remote control. Others follow a preset course without a ground pilot. These drones have inbuilt computers that help control their movements.

Not all drones are **aerial** drones, or drones that fly. There are also drones that glide beneath the world's oceans, and others that can both fly and travel under water.

Flying drones are known as Unmanned Aerial Vehicles or UAVs.



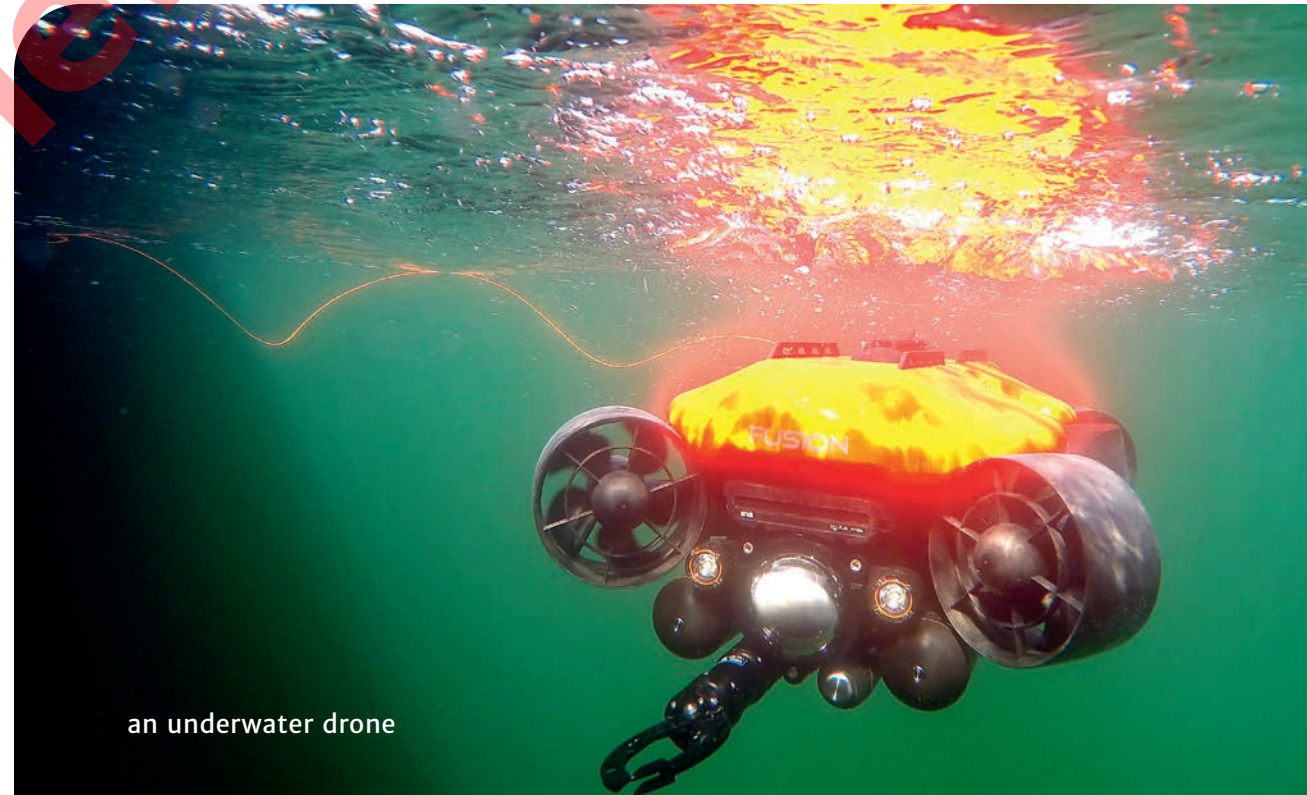
an aerial drone with a camera

Drones are used to carry out a surprising number of different tasks. For example, a drone can be used to inspect a power line, deliver a package or fly over a farmer's crop to check for pests.

Underwater drones allow their pilots to explore places such as coral reefs and shipwrecks.

Drones are often used to tackle big jobs, because they can complete them quickly and save people a great deal of time and effort.

However, not all drones are put to work. Some people fly drones as a hobby. Drone racing has become a popular sport around the world.



an underwater drone

The History of Drones

One of the earliest drones was built during World War I (1914–1918). An inventor called Charles Kettering built a drone that would carry bombs to distant targets. The drone was partly built of **papier mâché** (pronounced *pa-pee-ay mash-ay*) with cardboard wings. On its first flight, Kettering's drone crashed, and it was never used in combat. However, inventors now had the idea of developing drones to be used in war.

During the twentieth century, different kinds of **military** drones were made. Governments realised that drones were cheaper to build than regular aircraft and they could be used in conflict without any danger to aircrew. Today, military drones are commonly used in warfare.



Kettering's drone was nicknamed "the Kettering Bug" because it resembled a giant mosquito.

The Kettering Bug was much larger than many modern drones.

In the early twenty-first century, the technology of drones began to advance rapidly. With powerful cameras and **sensors** on board them, drones became **useful** for many different activities, from farming to making movies.

By 2015, small, **light** drones had become popular with the general public, **especially** for taking aerial photos and videos. People with smartphones or tablets could now fly a drone using **Wi-Fi** and post images **from** the flight on **social media**.

During this time, drones that could deliver packages to customers were **designed**. By 2021, there were drones delivering everything from books to medical products.

Today, aerial drones resemble flying robots that can do anything from tracking hurricanes to exploring inside pyramids, or even searching for life in outer space.



Using a drone, people can take photos of themselves in beautiful places.

Types of Drones

Drones are built in many shapes and sizes. Some are like small helicopters with horizontal blades called “rotors”. Each rotor is driven by a small motor.

Drones with four rotors are known as “quadcopters”. These little drones are popular as hobby drones because they are simple to operate and they can be assembled from a kit. Some quadcopters are small enough to fit inside a backpack or even a pocket.

Larger drones, which are used to carry heavy items, need many rotors to allow them to fly. One giant electric drone called a VTOL (which stands for Vertical Take Off and Landing) has eighteen rotors and can carry passengers.



Quadcopters can be assembled from kits.



Large electric VTOL drones can carry passengers.

Some of the largest drones resemble aeroplanes, with engines, stiff wings and vertical propellers. These drones are known as “fixed-wing” drones. They can fly higher and faster than drones with rotors, and stay in the air longer.

The biggest drones are over 20 metres long and can be as high as a two-storey building. Some of these massive aircraft need runways to take off and land, just as planes do.



a large fixed-wing drone