STEM AVSED

Aviation & Space Education

Let's Say Hi to the Drone in the Sky



There Are All Kinds of Drones



Some drones look like planes and some look like spaceships.

Drones can also have different numbers of wings or rotors.



There are many different types of drones doing all kinds of important work!

Drones Can Deliver Medical Supplies



Some places - like a mountaintop - are too remote for vehicles to reach. Drones can go there!

Drones Can Deliver Rescue Equipment



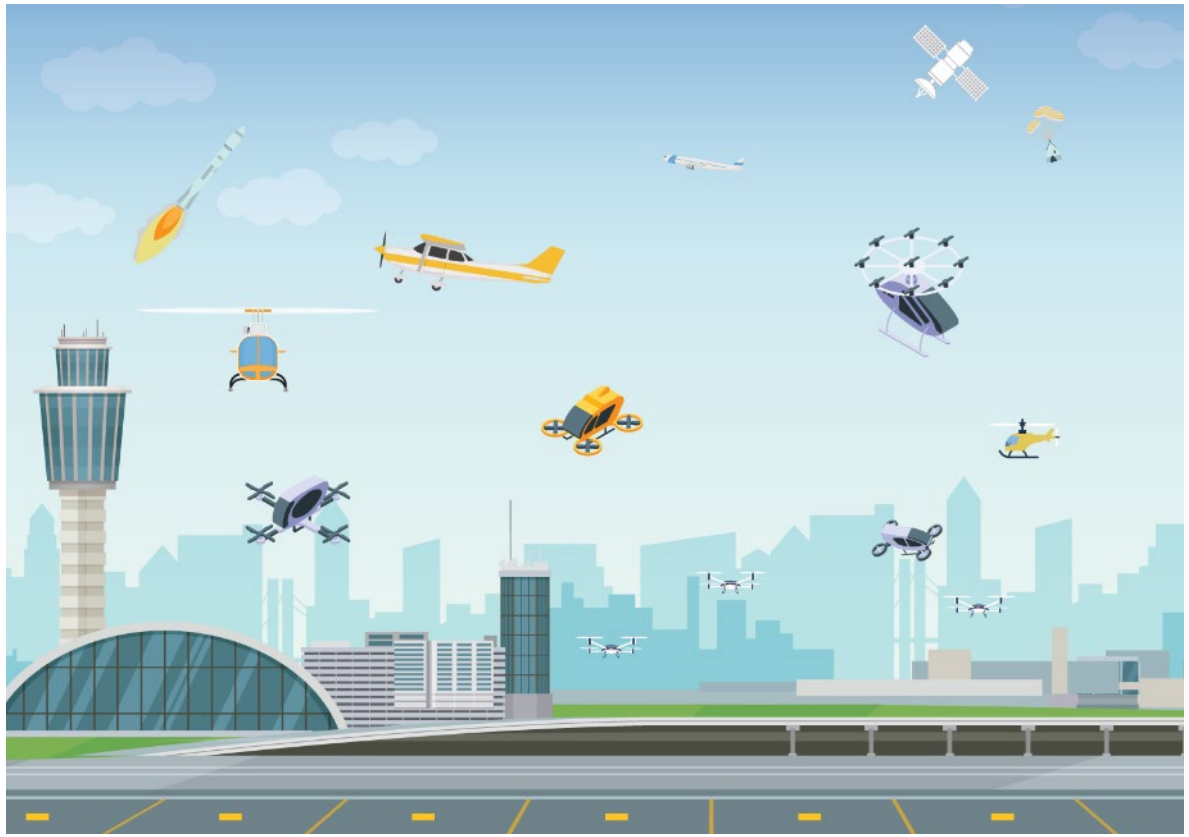
Imagine a boat is in danger of sinking. A drone can get life preservers to people.

Drones Can Monitor Construction Sites



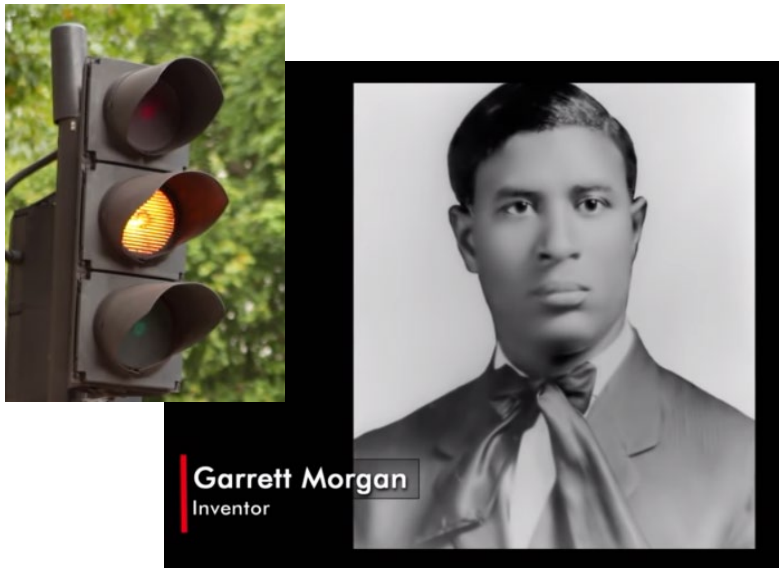
Drones can help crews manage large projects like construction or farming, because they can see things that the crew can't easily see – up high or far away.

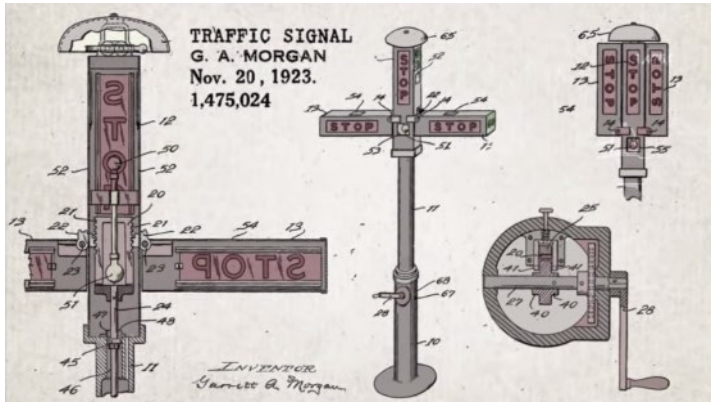
Managing Safety in the Sky



From drones to planes to helicopters to rockets to spaceships, FAA is working in partnership with other agencies, like NASA, to make sure it's safe for all of us – on the ground and in the air.

Safety Needs Evolve With Increased Traffic





100 years ago, in the early days of automobiles, stop signs had only **2 lights for Stop and Go.**

Accidents increased as the number of cars increased.

In 1927, inventor Garret Morgan created a 3-light system for traffic lights that was the predecessor to the **Yellow traffic signal** now on *every* traffic light.

Today We Need to Find a Similar Solution for Air Traffic



More than 700,000 remotely piloted aircraft or drones are flying in our skies today, along with the airplanes, helicopters, rockets and spaceships.

FAA is working with other agencies on systems to monitor and ensure our safety in the skies.

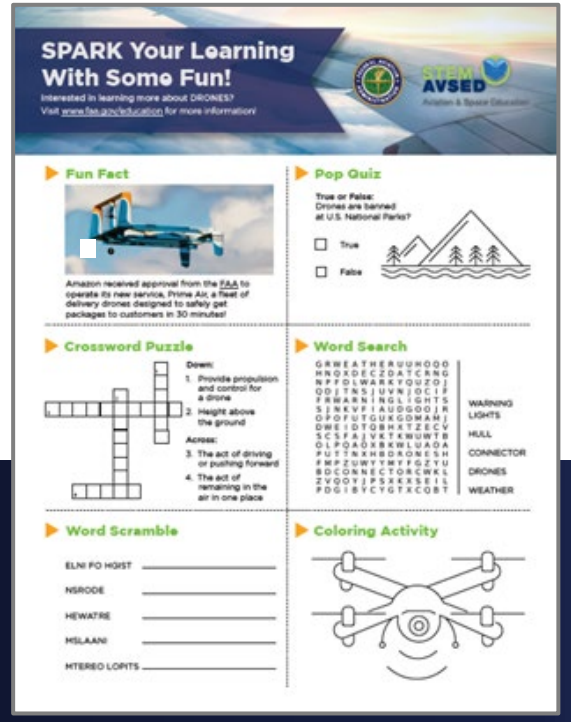
Who Can Fly a Drone?

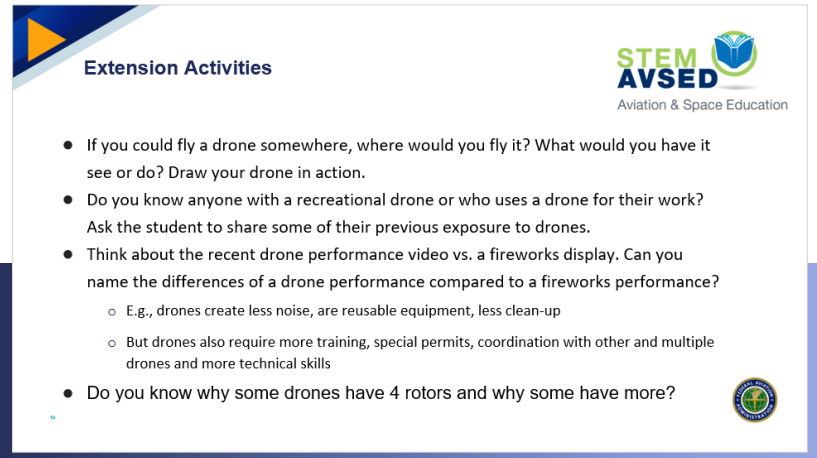


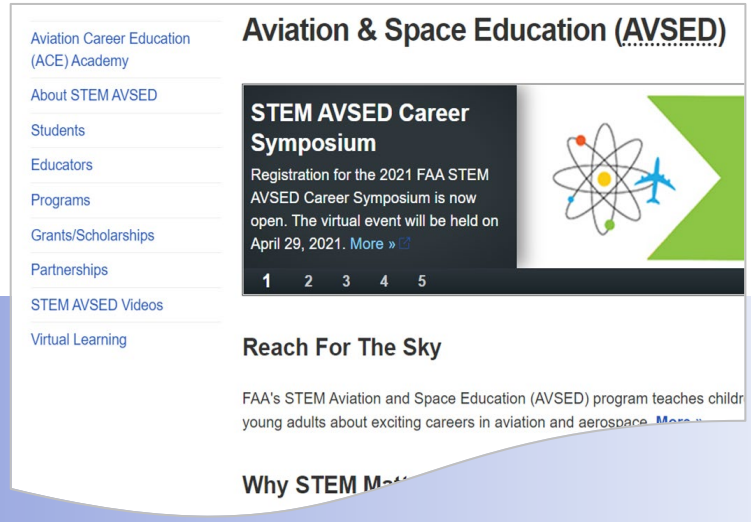
The FAA oversees Remote Pilot Certificates.

With this certificate from FAA, anyone over the age of 16 can fly a drone.

Continue Learning







SPARK Sheet

Extension Activities

www.faa.gov/education/

Extension Activities

- If you could fly a drone somewhere, where would you fly it? What would you have it see or do? Draw your drone in action.
- Do you know anyone with a recreational drone or who uses a drone for their work? Ask the student to share some of their previous exposure to drones.
- Think about the recent drone performance video vs. a fireworks display. Can you name the differences of a drone performance compared to a fireworks performance?
    - E.g., drones create less noise, are reusable equipment, less clean-up
    - But drones also require more training, special permits, coordination with other and multiple drones and more technical skills
- Do you know why some drones have 4 rotors and why some have more?