One of the most important outcomes of engineering is to develop technology in such a way that it can be more usable to more people. As batteries, sensors and computers have become cheaper, and smaller, the development of quadcopter drones has followed. These devices are great platforms for learning the basics of control theory while stirring up debate on the ethical consequences of their use.

The Federal Aviation Administration (FAA) is the regulating body that oversees use of airspace in the United States. It is generally up to this agency to set the rules for all aerial vehicles, and they have not been able to keep up with the rapid expansion of technology or the massive influx of quadcopter pilots that have entered the airspace over the past few years. The FAA and the National Transportation Safety Board (NTSB) have made decisions regarding the use of these machines, but the boundaries of their authority, and the limits on drone use remain unclear. [1]

Once the technology became readily available, drone pilots almost immediately pushed the limits of appropriate and responsible use. As attorneys and lawmakers argue on how to define the status of drones, groups like the International Society of Air Safety Investigators (ISASI) advocate for regulations that put public safety, privacy, and security as top priorities. [2]

Current state of UA vehicles

FAA requirements

<https://www.faa.gov/uas/getting_started/model_aircraft/>