

# **Is Your Drone Legal?**

**Last updated: 11/8/2023**

# Why all the rules?

The intent of the drone rules for CENTERSTAGE<sup>SM</sup> is to ensure we have a truly exciting end game with traditional paper airplanes being launched off the field toward the audience. Drones are expected to **LOOK** like a traditional paper airplane.



PRESENTED BY  RTX





# How to use this document:

This document is a visual aid to assist teams in determining what are considered legal and illegal drones. Teams should be sure to read through the Game Manual Part 1 – Section 7.5 prior to constructing their drone.

This document also provides definitions of a traditional paper airplane, as well as defines parts of a paper airplane that are required for teams to build a legal Drone.

After reading the rules, if teams have questions about a particular type of Drone and its legality, they may upload an image of the Drone to the link in this document. Teams will **not** receive a direct response to uploaded images.

Images of Drones that are determined to help with a general understanding of legality will be added to this document, and an updated document will be posted. When updated, *FIRST* Tech Challenge will communicate the update to teams via the [team blast](#).

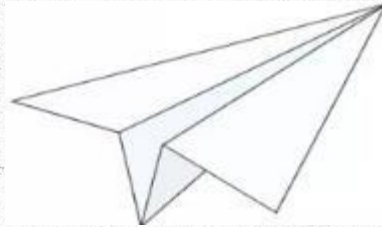


PRESENTED BY  Raytheon  
Technologies



# Definitions

**Traditional Paper Airplane** – A gliding toy aircraft made out of a single folded sheet of paper.



**Drone** – A Drone is a traditional paper airplane made from materials listed in section 7.5 of the Game Manual Part 1.



# Definitions

The images on this page are to assist teams with a visual aid of the rules listed in the game manual part 1. For example, <DR02> stipulates that the drone must have wings and a defined fuselage.

**Wings** – The gliding mechanism of the Drone.



**Fuselage** – The fuselage is the body of the Drone. The fuselage of the Drone is shown as the folded area underneath the Drone that is the base of the entire Drone structure. The fuselage runs from the nose of the Drone to the tail.



# Rules for uploading:

After reading this document, along with the Drone construction rules in [game manual part 1](#), teams may still have questions about the legality of their Drone. Teams that still have questions may upload an image of their Drone here. Please make sure to follow the rules outlined below. We will NOT respond to every image received.

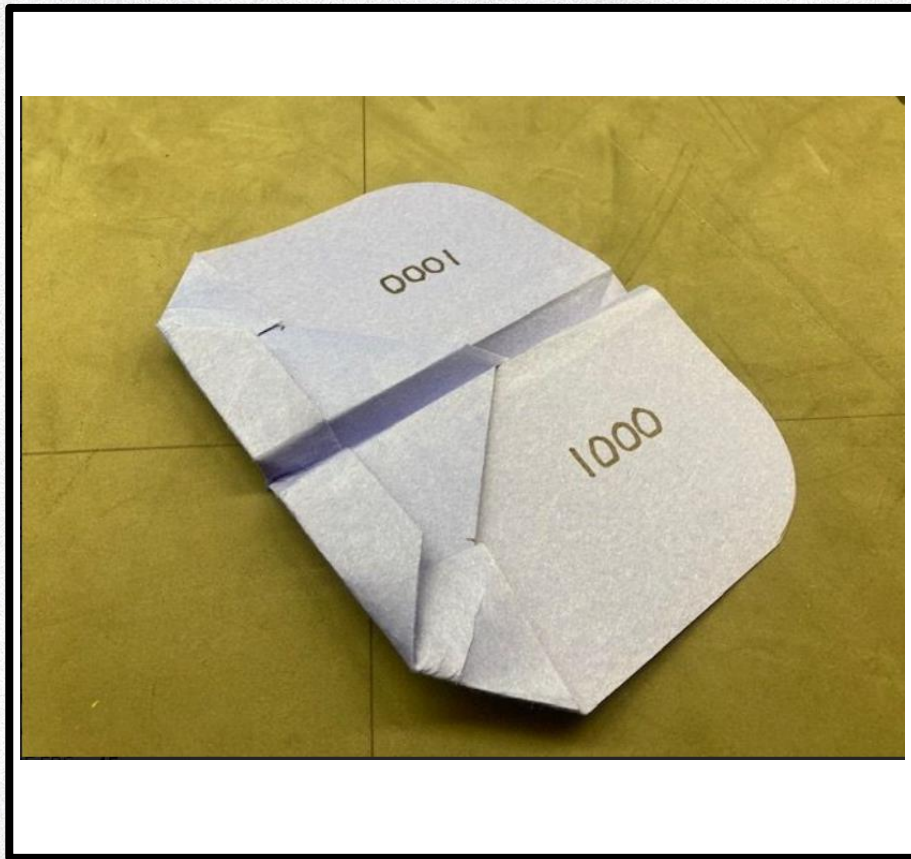
1. Only images of Drones are allowed to be uploaded via this link.
2. Only upload images of Drones that will be used in an official match! This means that the Drone must satisfy all construction rules listed in the game manual (e.g. “inspection ready”).
3. Only png, jpeg, or PDF file formats are allowed.
4. Please use the file format name with your team number, followed by “\_drone”
  - a. Example: 1234\_drone.jpeg
5. Please use *Gracious Professionalism*®. Misuse of this process will lead to termination of the link and no further updates will be made to this document.
6. Please use this [Link](#) to upload your Drone image. By uploading an image of your Drone, you are providing consent to *FIRST* to share the image. Images shared with *FIRST* may be published in this document.





# Legal Drones

Some examples of paper airplanes that will be allowed to play in CENTERSTAGE



<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used







<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



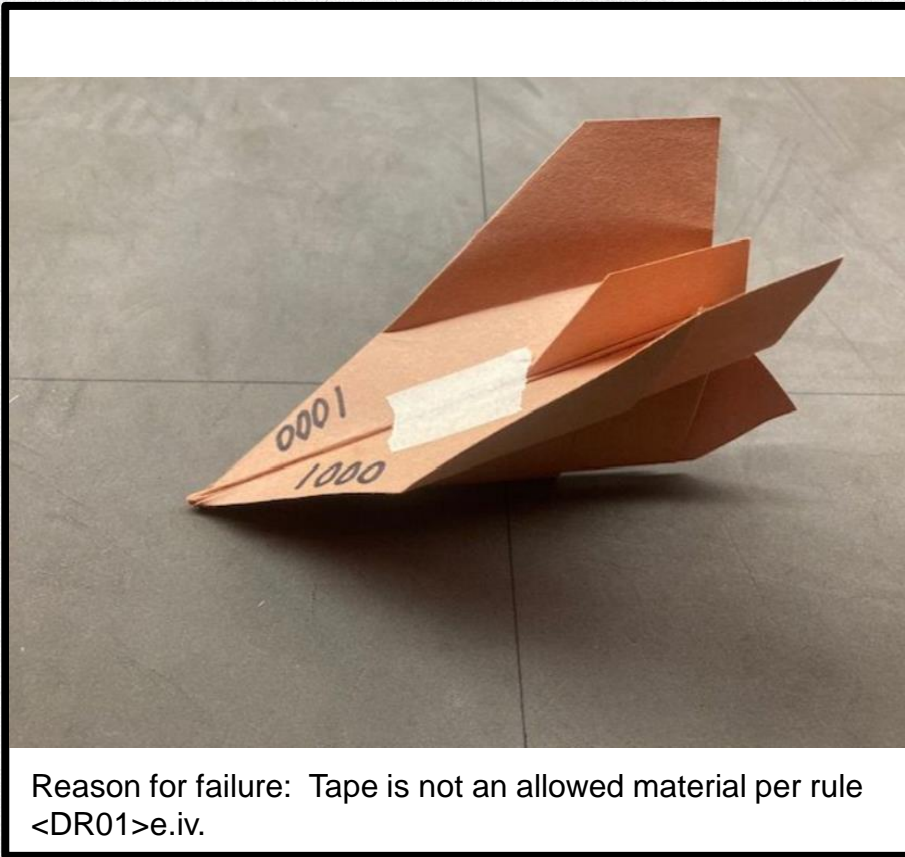
<DR01>e.iv. – No other materials may be used



# Illegal Drones

Some examples of paper airplanes that will not be allowed to play in CENTERSTAGE





<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number

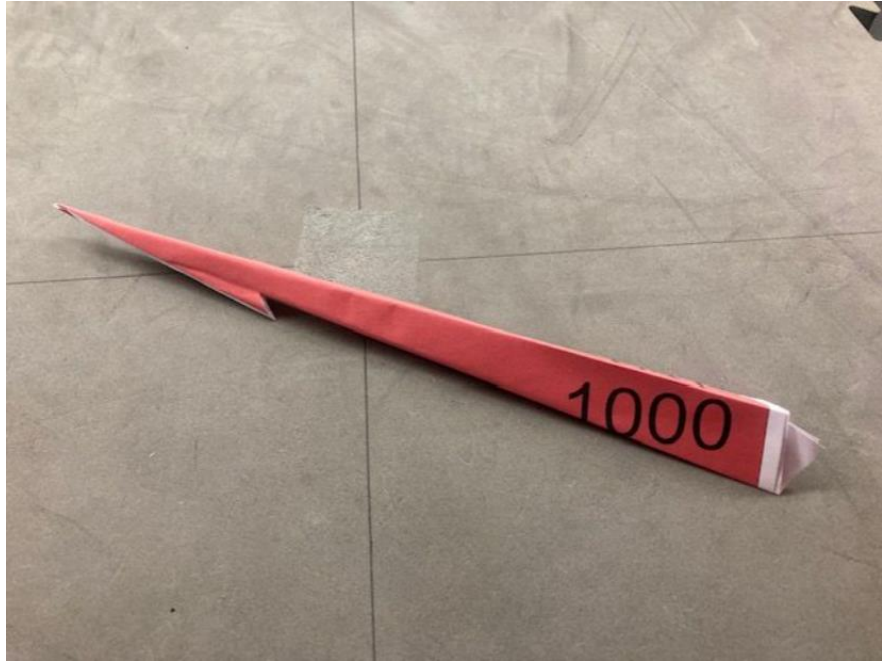


<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used





Reason for failure: This has only a fuselage, there are no functional wings.

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used







Reason for failure: Does not look anything like a paper airplane. It has no fuselage or wings.

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used





Reason for failure: Does not look anything like a paper airplane. Only has a circular wing, there is no fuselage.

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used







Reason for failure: Looks cute but has no functional wings.

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used





Reason for failure: Does not look like a traditional paper airplane and does not have a fuselage

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



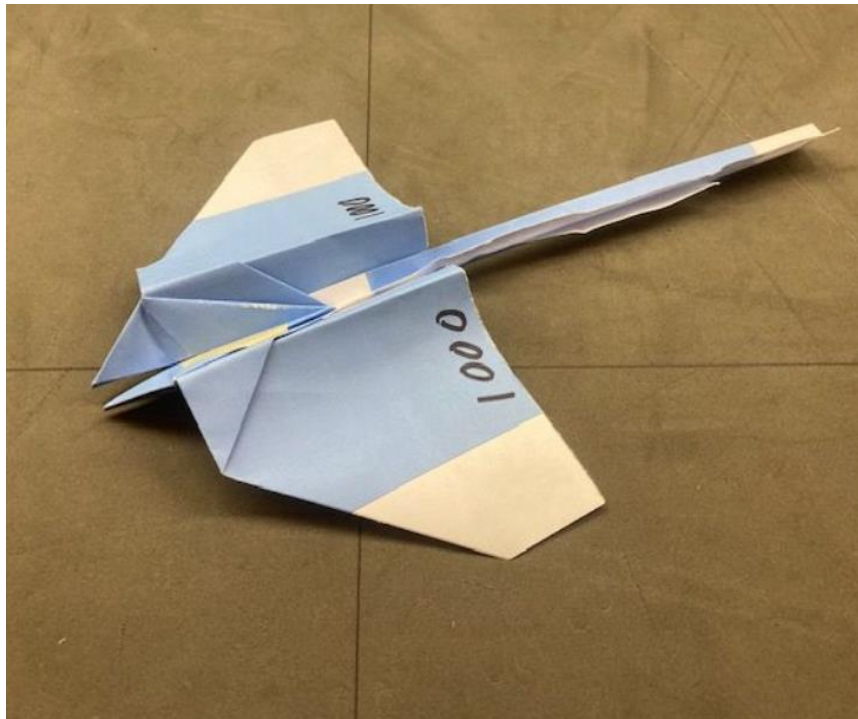
<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used







Reason for failure: This was made from two separate pieces of paper.

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number

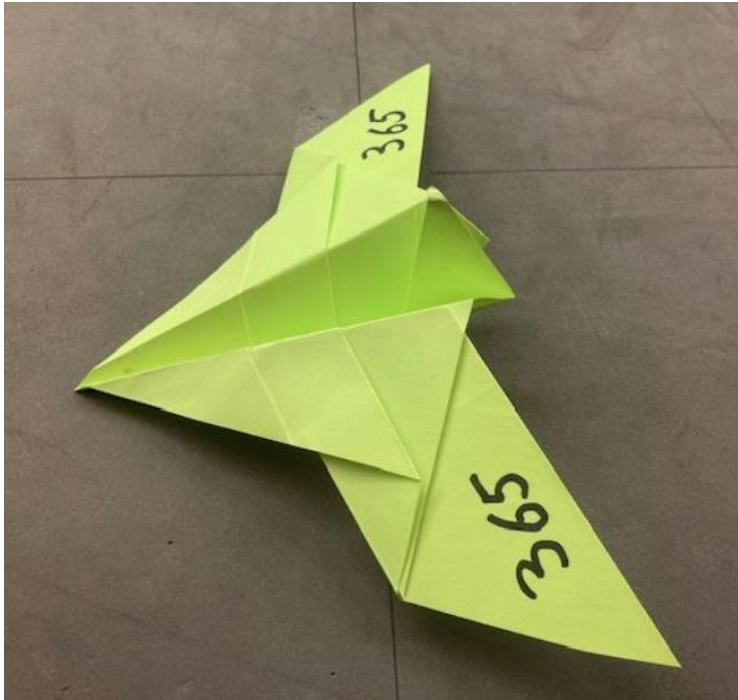


<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used





Reason for failure: The airplane must be red or blue.  
Green is not acceptable.

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used







Reason for failure: This does not look like a traditional paper airplane and does not have functional wings.

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used





Reason for failure: This does not look like a traditional paper airplane and does not have a fuselage

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used







Reason for failure: This does not look like a traditional paper airplane and does not have a fuselage

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number

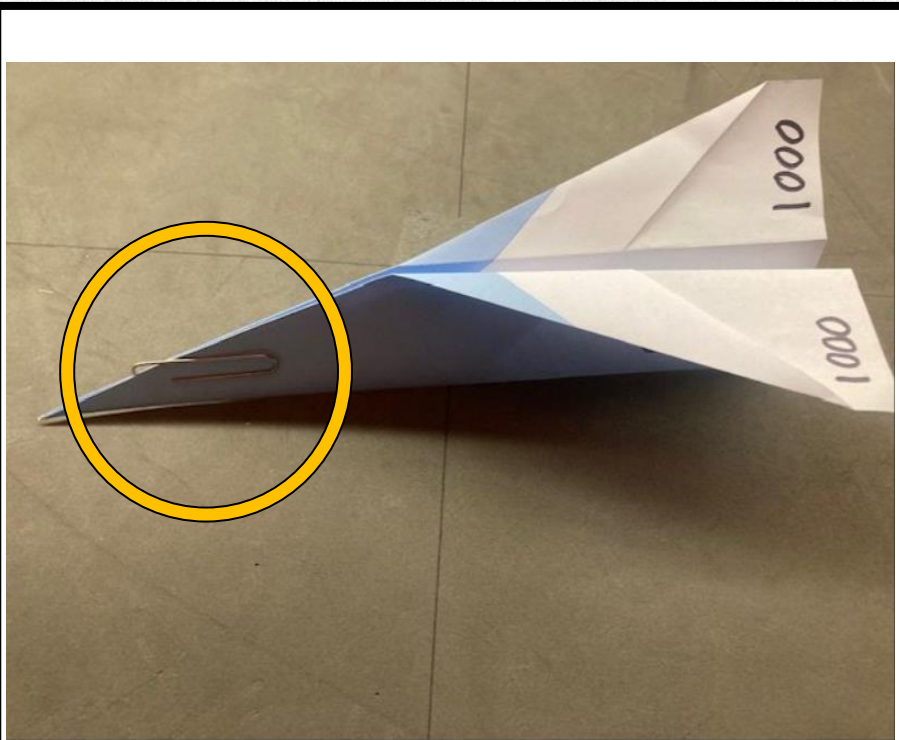


<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used





Reason for failure: The paperclip on the nose is an illegal material.

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used







Reason for failure: Made from several separate pieces of paper, uses tape to hold it together, and doesn't look like a traditional paper airplane.

<DR01>b. – Must look like a paper airplane, with fuselage and wings



<DR01>c. – Color must match Alliance



<DR01>d. – Drone must be labeled with Team number



<DR01>e.i. – Must be made from one, continuous sheet of paper. No bigger than 8 ½ x 11 or A4.



<DR01>e.iv. – No other materials may be used

