



## X10D Weight and Balance

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# WEIGHT AND BALANCE

## Scope

The *Weight and Balance* document has been prepared to recognize the importance of weight and balance technology in conducting safe and efficient flights. This document aims to provide the airframe and powerplant mechanic with the method of determining an aircraft's weight and center of gravity and to furnish the flight crew with information necessary for operating the vehicle.

## Weight

Table 1 lists the dimensions of the X10 system:

X10D SYSTEM	DIMENSIONS
<b>Height</b>	5.4 in / 13.8 cm
<b>Length unfolded</b>	23.6 in / 60 cm
<b>Wingspan</b>	28.5 in / 72.5 cm
<b>Chassis length with sensor</b>	11.9 in / 30.2 cm
<b>Fully deployed</b>	31.1 x 25.6 x 5.7 in / 79 x 65 x 14.5 cm
<b>Folded without battery</b>	13.8 x 6.5 x 4.7 in / 35 x 16.5 x 11.9 cm
<b>Folded with battery diameter</b>	7.25 in / 18.4 cm
<b>Propellers diagonal tip-to-tip</b>	12.5 in / 31.8 cm
<b>Battery</b>	6.8 x 2.7 x 2.4 in / 173 x 69 x 61 cm
<b>X10 controller</b>	10.5 x 5 x 3 in / 26.7 x 12.7 x 7.6 cm

*Table 1 – Dimensions*

## WEIGHT AND BALANCE

<b>X10D SYSTEM</b>	<b>WEIGHT</b>
<b>Vehicle with sensor and battery</b>	4.72 lb / 2.14 kg
<b>Vehicle and sensor without battery</b>	3.1 lb / 1.4 kg
<b>Gimbal and sensor package</b>	9.9 oz / 283 grams
<b>Battery</b>	1.56 lb / 707.5 grams
<b>Propeller hub</b>	3.1 oz / 68 grams
<b>X10 controller</b>	1135 grams
<b>Security Key</b>	2 grams
<b>USB-C Cable</b>	36 grams
<b>Dual Charger</b>	316 grams
<b>Power Supply Cable</b>	373 grams

*Table 2 – Weight*

# WEIGHT AND BALANCE

## Balance

Table 3 lists the balance information for the X10 sUAV system:

Component	X	Y	Z	Note
UAV	.65 mm	1.0 mm	-10.5 mm	deviation from the center of lift

Table 3 – X10 balance

Figure 1 represents the vehicle's center of gravity and the coordinate frame of reference used for balance specification.

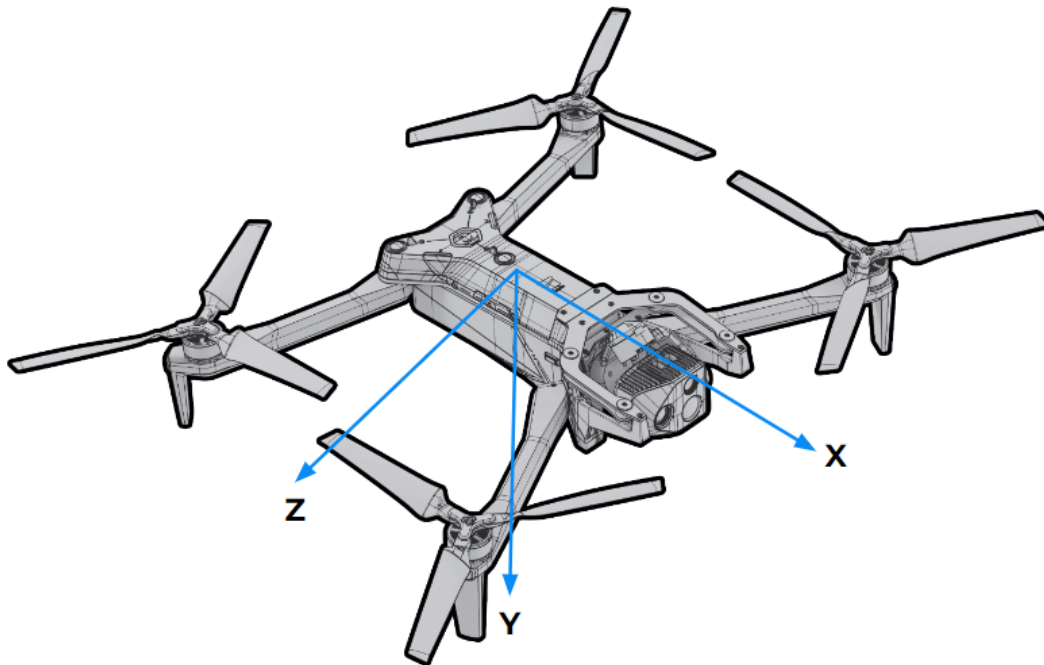


Figure 1 - Deviation from the center of lift