X4 Mass Properties

Used SolidWorks to determine the mass properties with the provided model (made minor adjustments to add top box and Here3 gps).

Resource: https://robotics.stackexchange.com/questions/42406/urdf-link-mass-inertia-properties

Mass Properties Calculated From Solidworks

Mass properties of X4 Assem
Configuration: Default
Coordinate system: -- default --

Mass (user-overridden) = **5.42400000 kilograms** – **X4 UAV MTOW** (https://aurelia-aerospace.com/wp-content/uploads/2024/04/Brochure-2404-Aurelia-X4-Standard.pdf)

Volume = 0.00059459 cubic meters
Surface area = 0.86926828 square meters

Center of mass: (meters)
X = -0.00043999
Y = -0.00372827
Z = -0.00908476

Moments of inertia: (kilograms * square meters)

Taken at the center of mass and aligned with the output coordinate system. (Using positive tensor notation.)

Lxx = 0.15463586	Lxy = 0.00257750	Lxz = 0.00002698
Lyx = 0.00257750	Lyy = 0.18633871	Lyz = 0.00349282
Lzx = 0.00002698	Lzy = 0.00349282	Lzz = 0.16277971