



US00D710453S

(12) **United States Design Patent**  
**Barajas et al.**

(10) **Patent No.:** **US D710,453 S**  
(45) **Date of Patent:** **\*\* Aug. 5, 2014**

(54) **QUADROTOR MODEL HELICOPTER AIRFRAME**

(71) Applicant: **Traxxas LP**, Plano, TX (US)

(72) Inventors: **Jaime Felix Barajas**, McKinney, TX (US); **Kent Poteet**, Lucas, TX (US); **Casey Christen Jens Christensen**, McKinney, TX (US); **Otto Karl Allmendinger**, Rowlett, TX (US); **Richard Douglas Hohnholt**, Coppell, TX (US)

(73) Assignee: **Traxxas LP**, McKinney, TX (US)

(\*\*) Term: **14 Years**

(21) Appl. No.: **29/464,412**

(22) Filed: **Aug. 15, 2013**

(51) **LOC (10) Cl.** ..... **21-01**

(52) **U.S. Cl.**  
USPC ..... **D21/442**; D21/450; D12/16.1; D12/326; D12/328

(58) **Field of Classification Search**

CPC ..... A63H 27/02; A63H 27/04; A63H 27/12; A63H 27/127; A63H 27/133; B64C 2201/024; B64C 2201/108; B64C 2201/165; B64C 2203/00; B64C 39/024  
USPC ..... D12/16.1, 319, 320, 325, 326, 327, 328, D12/329, 330, 345; D21/430, 436, 437, D21/441, 442, 443, 444, 447, 450, 451, D21/453; 446/36, 37, 46-48, 230, 231, 232, 446/233, 236; 244/2, 5, 6, 7 A, 7 R, 12.1, 244/12.2, 17.11, 17.13, 17.17, 17.23, 17.25, 244/17.27, 23 C, 23 R, 53 R, 63, 244/158.1-158.3; 280/1.12; 416/130; 180/118; 89/1.13

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,749,471	A *	3/1930	De Bothezat	416/130
3,053,480	A *	9/1962	Vanderlip	244/17.13
3,253,806	A *	5/1966	Eickmann	244/17.23
3,345,016	A *	10/1967	Eickmann	244/17.23
3,768,757	A *	10/1973	Eickmann	244/17.23
5,082,079	A *	1/1992	Lissaman et al.	180/118
D453,317	S	2/2002	DeTore et al.	

(Continued)

OTHER PUBLICATIONS

MATTYP2013; "Phantom/Hero Black for sale" RC Groups bulletin board post; Jan. 13, 2013; <http://www.rcgroups.com/forums/showpost.php?p=23798876&postcount=1245>.  
Elintocable; "Traxxas QR-1 Quad Rotor"; RC Groups bulletin board post; Nov. 22, 2012; <http://www.rcgroups.com/forums/showthread.php?t=1775303&highlight=qr+1#post23336888>.

(Continued)

*Primary Examiner* — Martie K Holtje

(74) *Attorney, Agent, or Firm* — Carr LLP

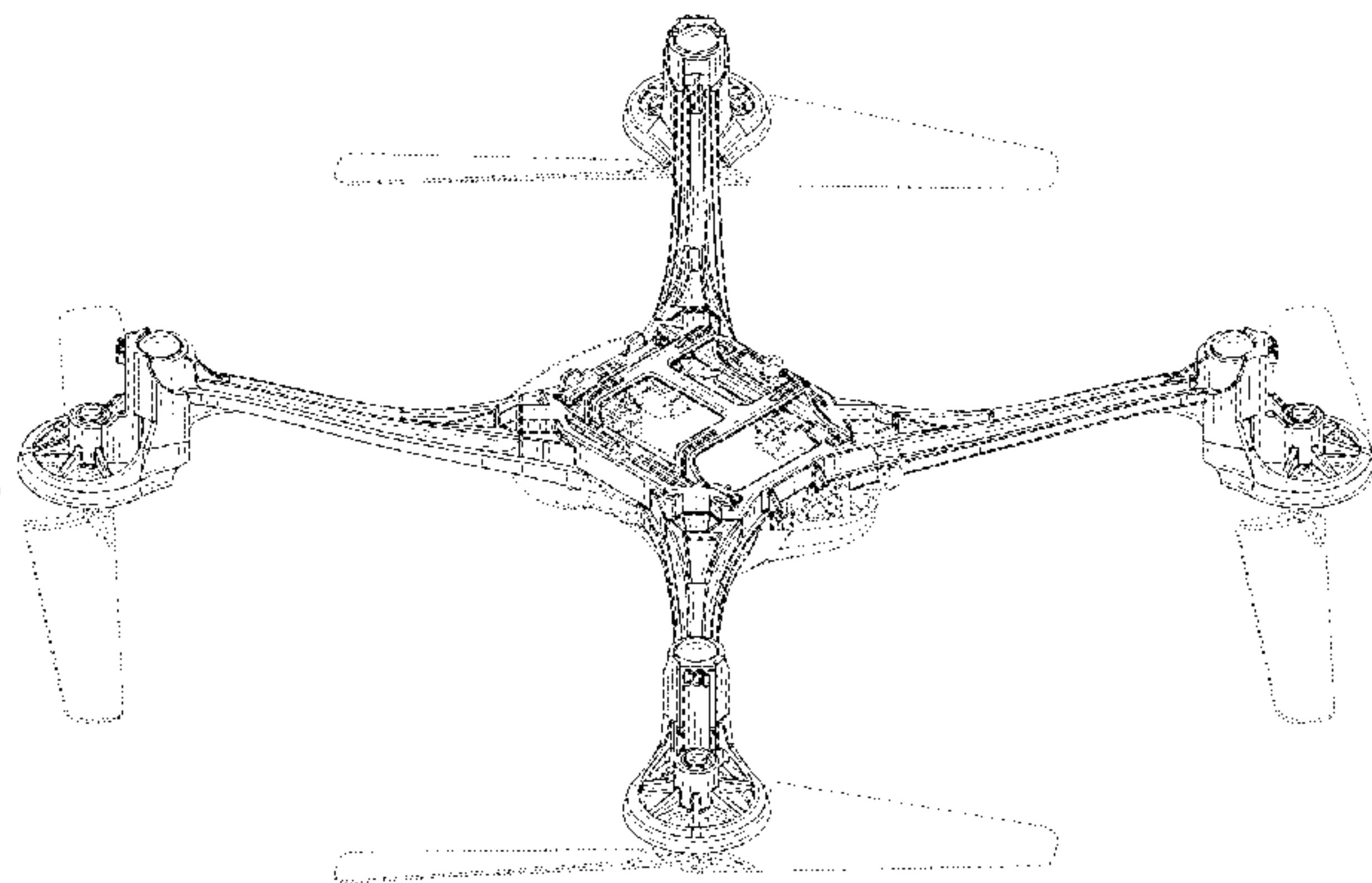
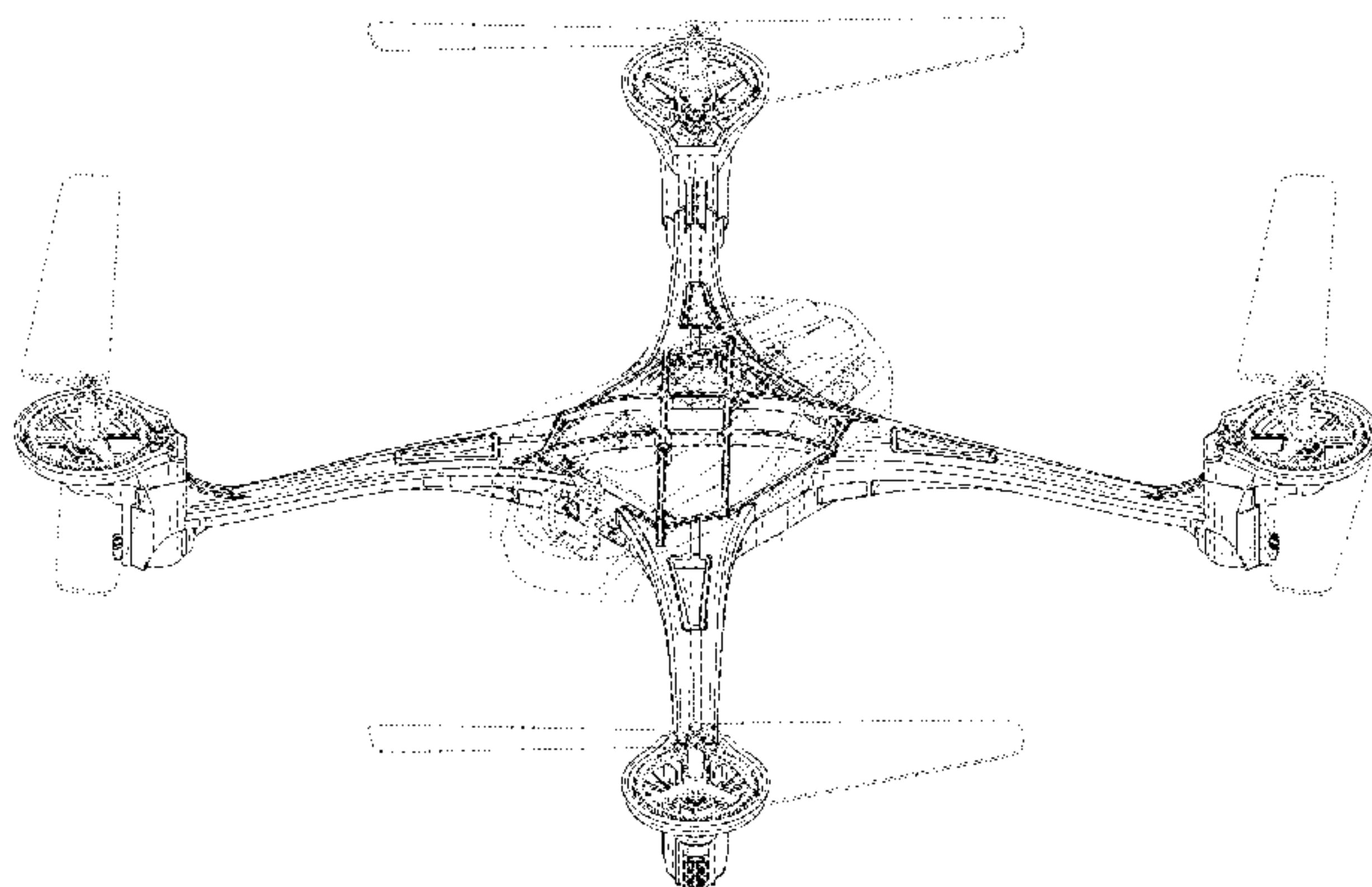
(57) **CLAIM**

We claim the ornamental design for a quadrotor model helicopter airframe, as shown and described.

**DESCRIPTION**

FIG. 1 is a top, right front perspective view of a quadrotor model helicopter airframe showing our new design; FIG. 2 is a top, left rear perspective view thereof; FIG. 3 is a top plan view thereof; FIG. 4 is a bottom plan view thereof; FIG. 5 is a front elevational view thereof; FIG. 6 is a right side elevational view thereof; FIG. 7 is a left side elevational view thereof; FIG. 8 is a rear elevational view thereof; FIG. 9 is bottom, right rear perspective view thereof; and, FIG. 10 is bottom left front perspective view thereof. The structural elements depicted by broken lines have been shown for the purpose of illustrating portions of the quadrotor model helicopter airframe that form no part of the claimed design.

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D458,892	S	6/2002	DeTore et al.	
D465,196	S *	11/2002	Dammar .....	D12/328
6,626,078	B2 *	9/2003	Thornton .....	89/1.13
D628,658	S *	12/2010	Wurm .....	D21/442
D648,808	S *	11/2011	Seydoux et al. ....	D21/441
D659,771	S *	5/2012	Seydoux et al. ....	D21/441
D691,514	S *	10/2013	Wang et al. ....	D12/16.1
2007/0105474	A1 *	5/2007	Gotou et al. ....	446/37
2008/0048065	A1 *	2/2008	Kuntz .....	244/17.23
2009/0283629	A1 *	11/2009	Kroetsch et al. ....	244/17.23
2010/0243794	A1 *	9/2010	Jermyn .....	244/17.23
2011/0017865	A1	1/2011	Achtelik et al.	
2011/0288696	A1	11/2011	Lefebure	
2012/0078451	A1 *	3/2012	Ohtomo et al. ....	701/15
2012/0138732	A1 *	6/2012	Olm et al. ....	244/17.23
2013/0092799	A1	4/2013	Tian et al.	
2014/0032034	A1	1/2014	Raptopoulos et al.	
2014/0099853	A1	4/2014	Condon et al.	

OTHER PUBLICATIONS

Blade mQX, Ultra Micro Quad-Copter; Jun. 15, 2012.  
 Blade Nano QX 18 Gram Quad-Copter; Jul. 3, 2013.  
 Hobbico; "Heli Max1SQ Ready-to-Fly Quadcopter", fact sheet; 2012; <http://downloads.hobbico.com/factsheets/hmx/hmxe0834-fact-sheet.pdf>.  
 Syma X1 quadcopter; photographed Apr. 22, 2013.  
 Dualsky, Hornet 460, 9<sup>th</sup> Shanghai International Model Exhibition 2012; Aug. 28, 2013.  
 Ariete; "Walkera Hoten X" RC Groups bulletin board post; Jul. 26, 2012; <http://www.rcgroups.com/forums/showpost.php?p=22269995&postcount=1>.  
 Walkera; "Ladybird" quadcopter; May 25, 2012.  
 Walkera; "Scorpion" quadcopter; Jul. 20, 2012.  
 Walkera; "MX400 UFO" quadcopter; May 23, 2012.  
 Parrot AR.Drone2.0; photographed May 26, 2012.  
 Bangkomit; "Hubsan X4H107L"; RC Groups bulletin board post; Mar. 1, 2013; <http://www.rcgroups.com/forums/showthread.php?t=1842561#post24290286>.

\* cited by examiner

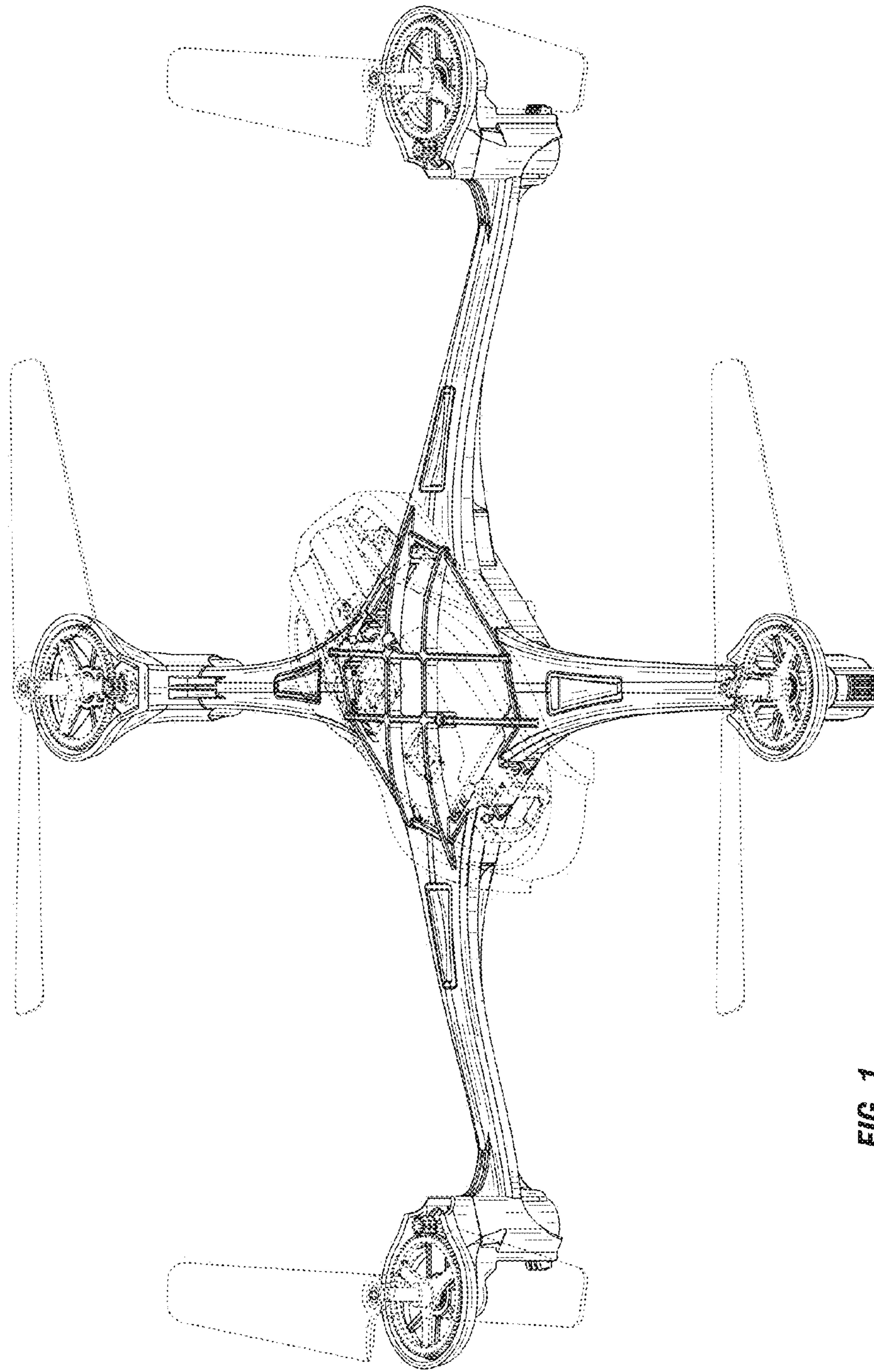


FIG. 1



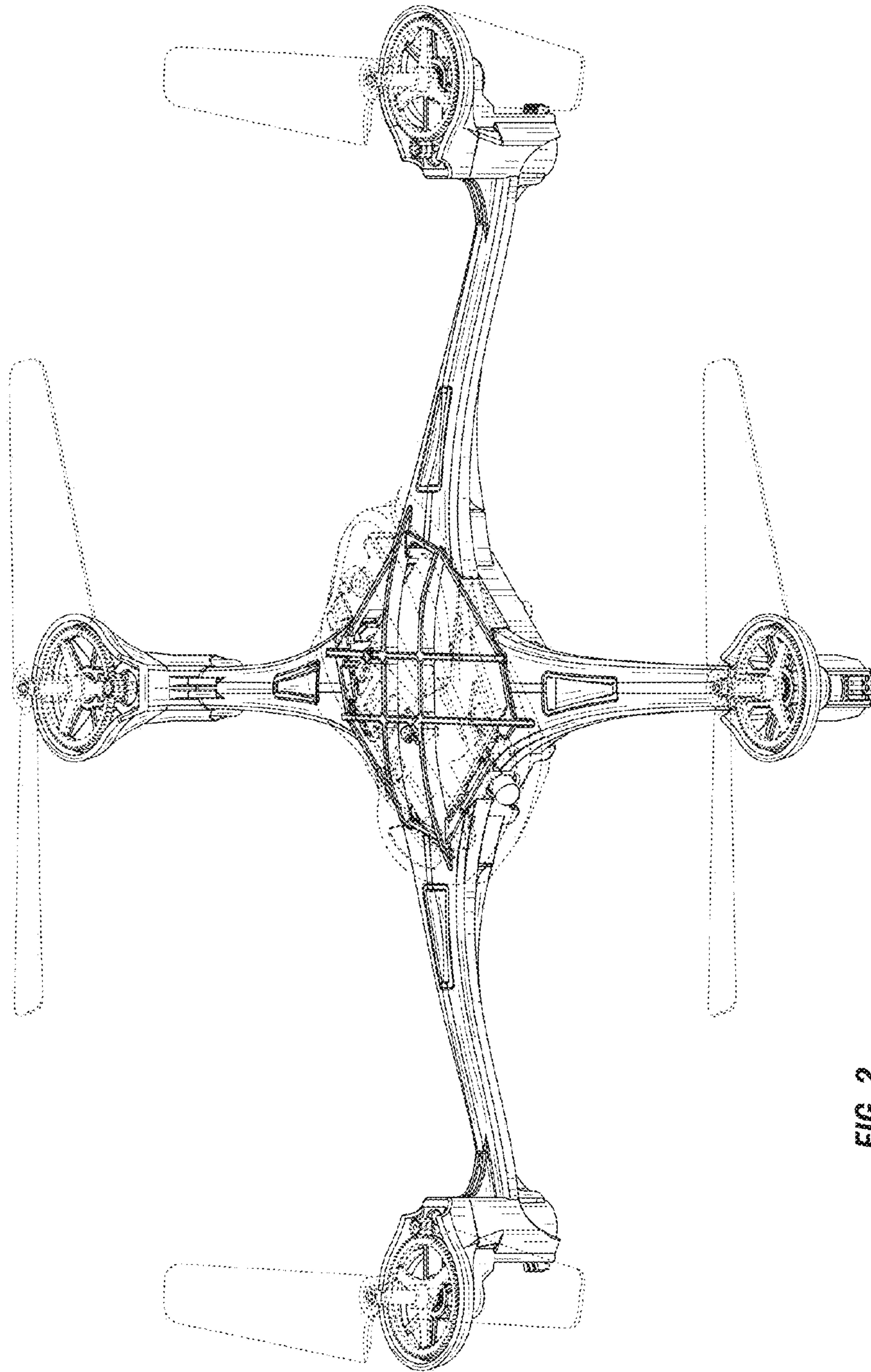


FIG. 2

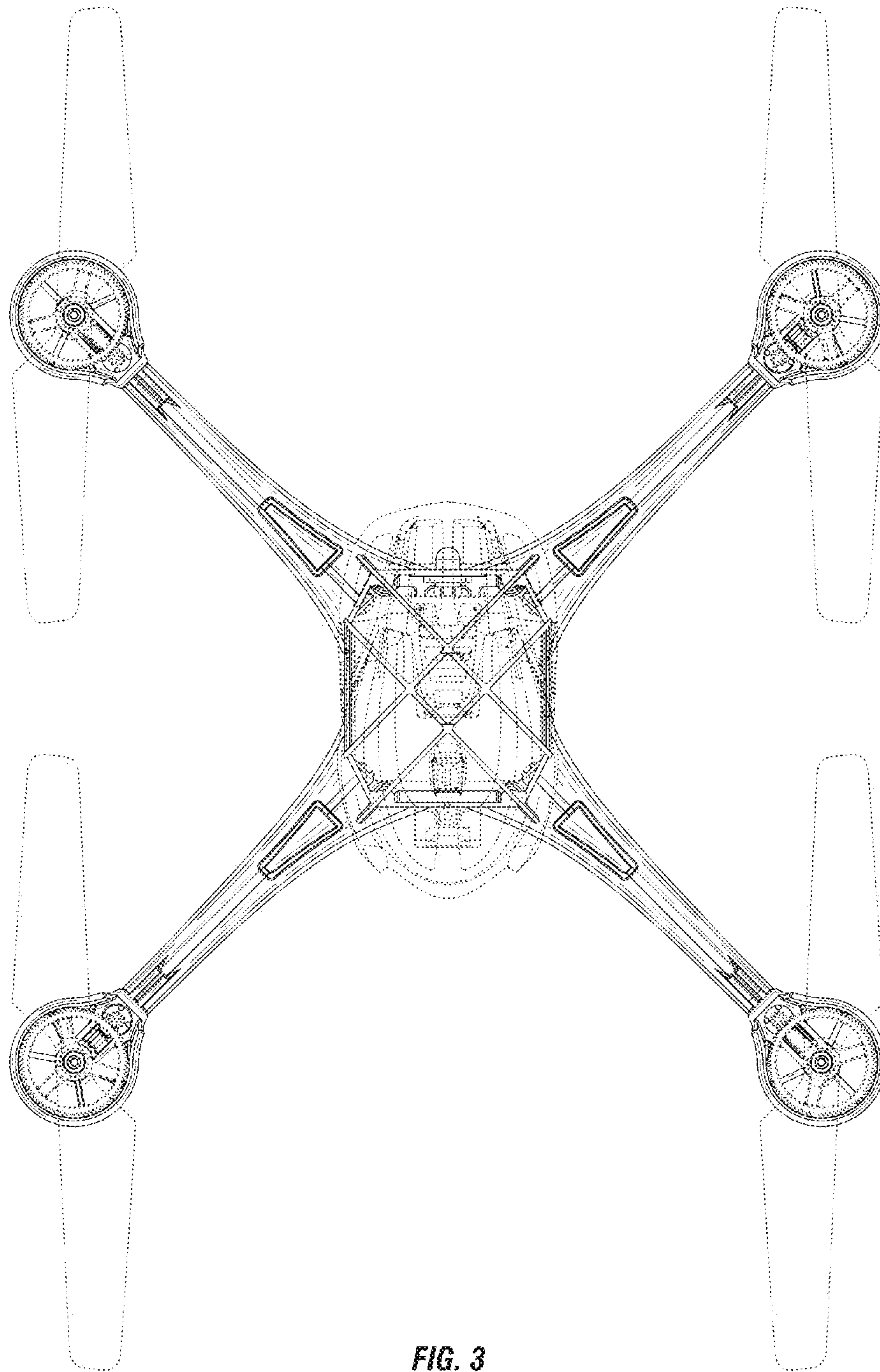


FIG. 3

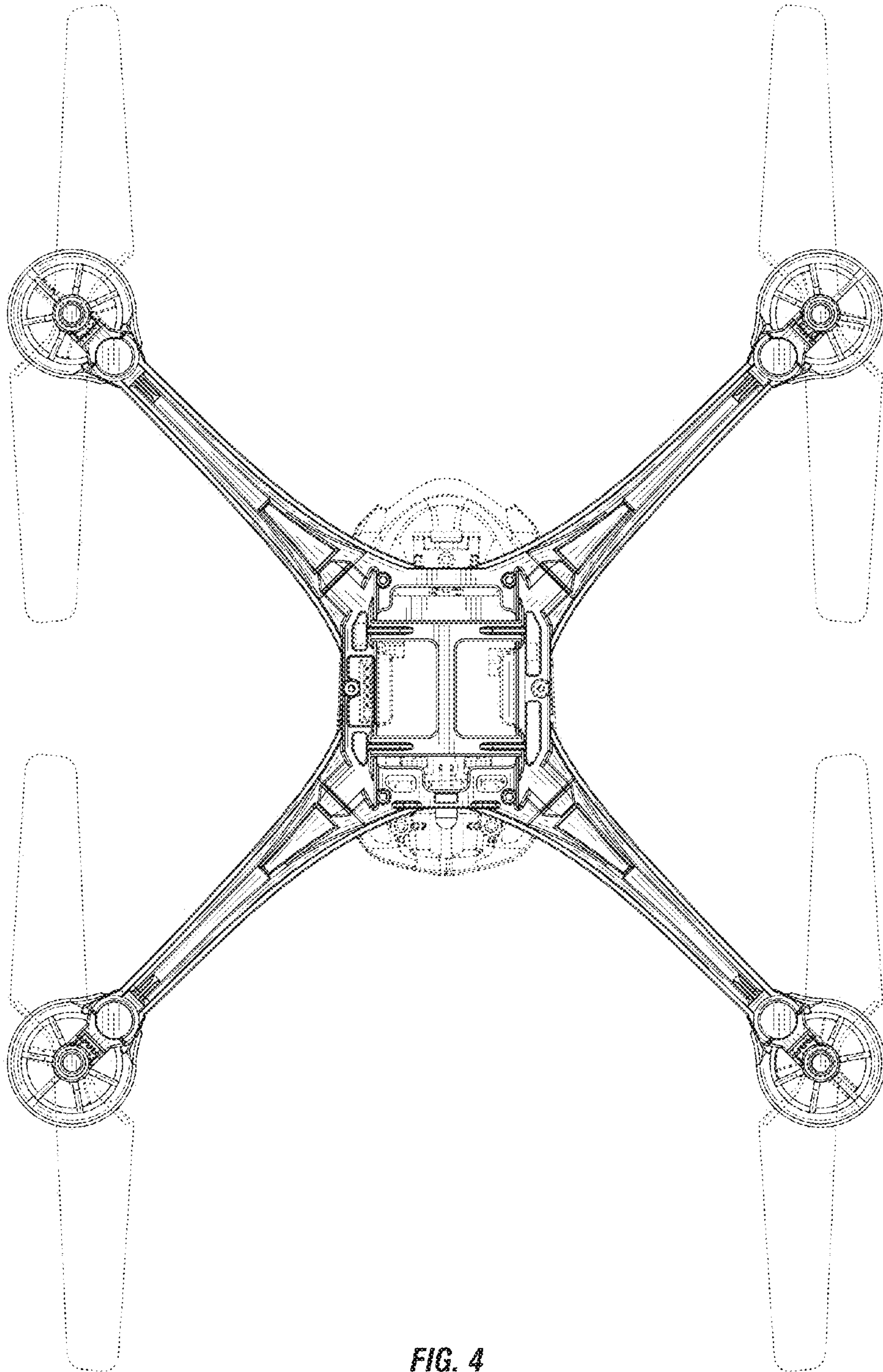


FIG. 4



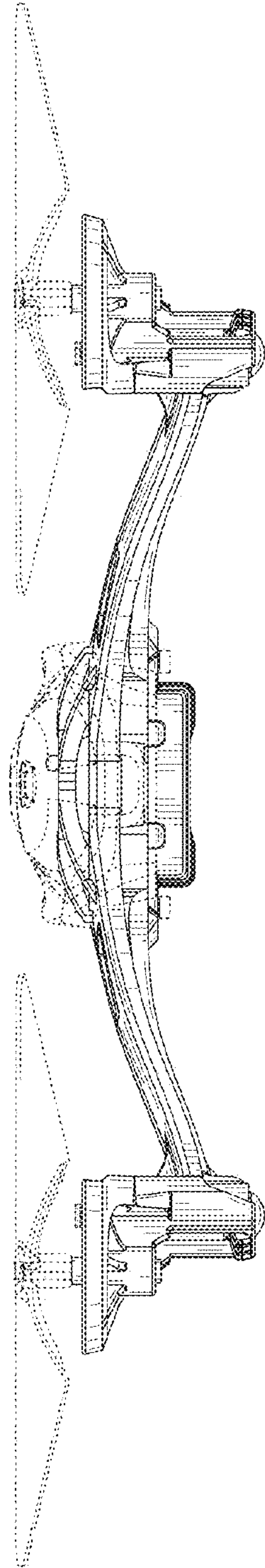


FIG. 5

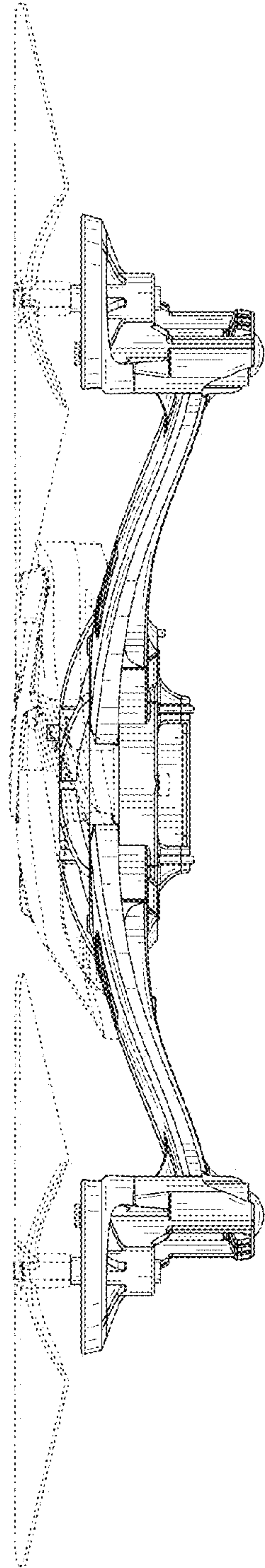


FIG. 6

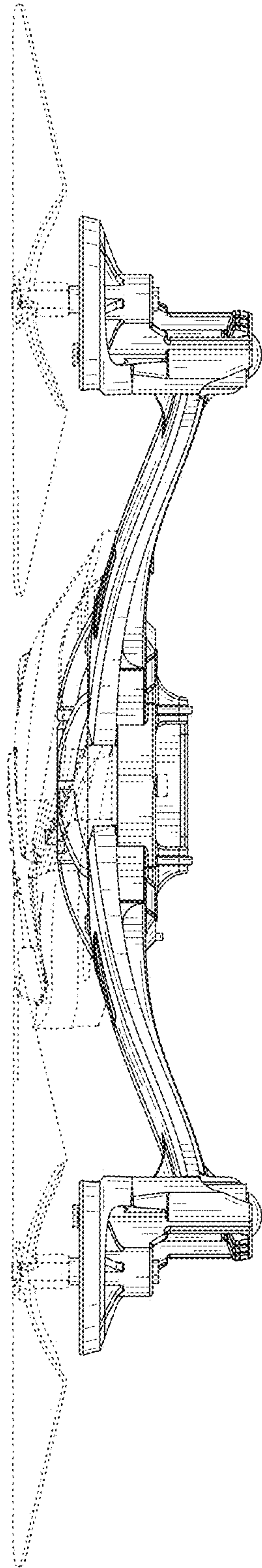


FIG. 7

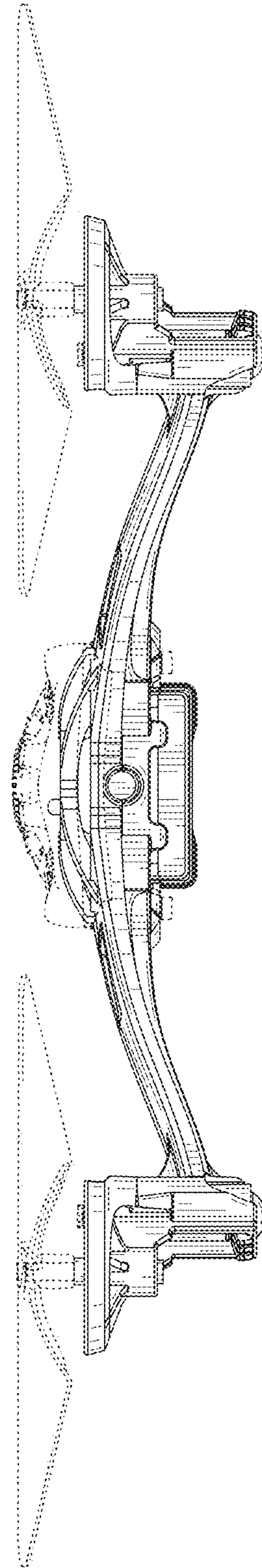


FIG. 8



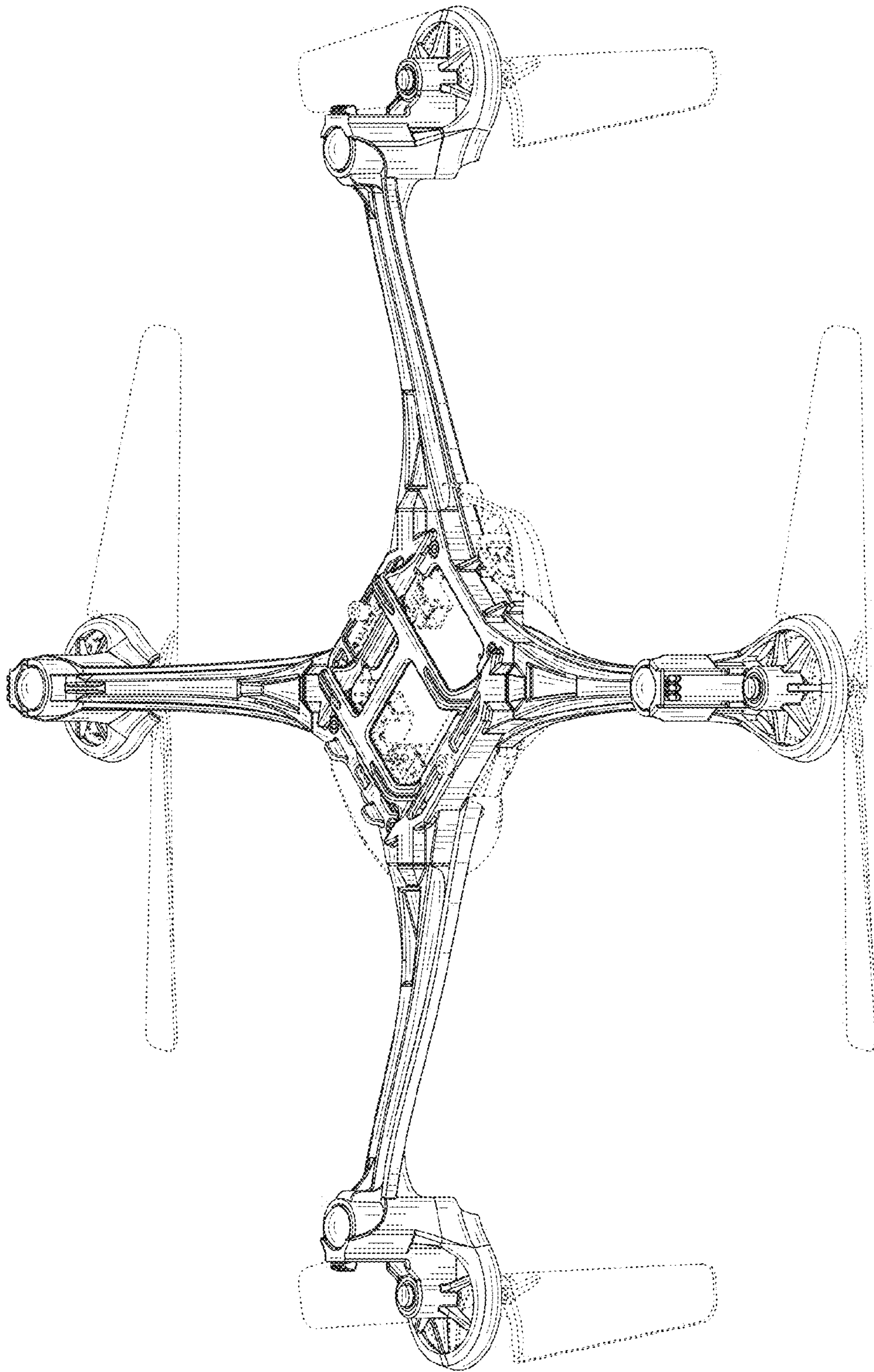


FIG. 9

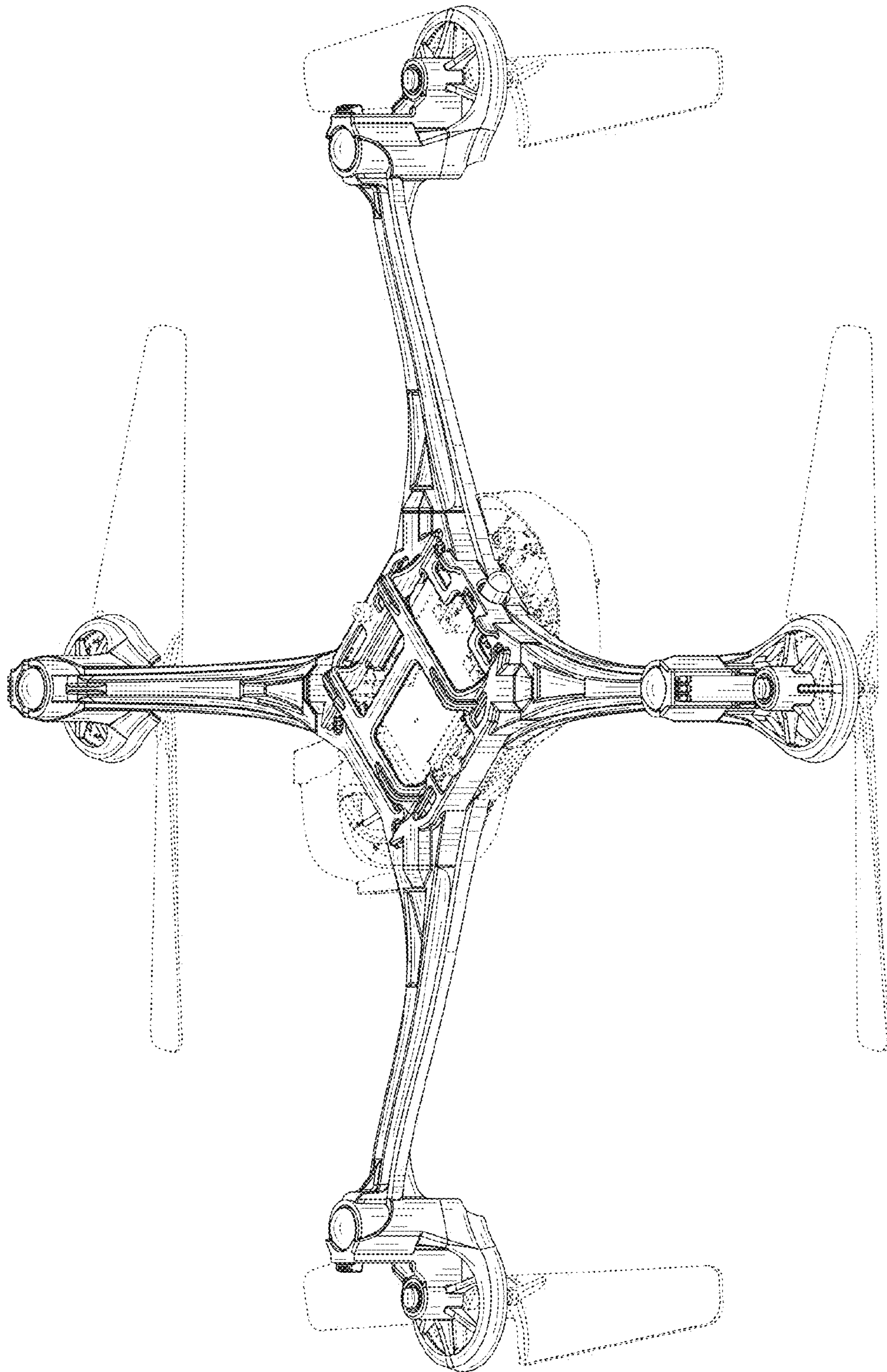


FIG. 10