

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
01 July 2021 (01.07.2021)



(10) International Publication Number
WO 2021/134053 A1

(51) International Patent Classification:
B64D 27/24 (2006.01) *B64C 29/00* (2006.01)

(21) International Application Number:
PCT/US2020/067088

(22) International Filing Date:
27 December 2020 (27.12.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
16/729,167 27 December 2019 (27.12.2019) US

(71) Applicant: **WING AVIATION LLC** [US/US]; 100 Mayfield Ave., Mountain View, CA 94043 (US).

(72) Inventors: **JENKINS, Kevin**; 100 Mayfield Ave., Mountain View, CA 94043 (US). **PRAGER, André**; 100 Mayfield Ave., Mountain View, CA 94043 (US). **JONES,**

Brandon; 100 Mayfield Ave., Mountain View, CA 94043 (US). **FITZSIMONS, John**; 100 Mayfield Ave., Mountain View, CA 94043 (US).

(74) Agent: **OBISSI, Adnan M.**; McDonnell Bochen Hulbert & Berghoff LLP, 300 South Wacker Drive, Chicago, IL 60606 (US).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(54) Title: SYSTEMS AND METHODS FOR STOPPING MOVEMENT OF OPERATIONAL MEMBERS

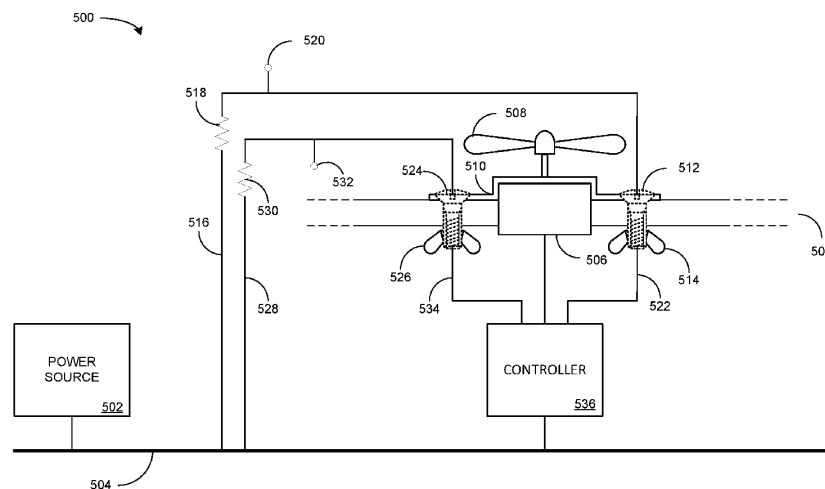


FIG. 5A

(57) Abstract: A method is provided that includes causing an operational member of a system to move. The method includes driving a power or control signal through a conductive coupling member. The conductive coupling member is connected between a first terminal and a second terminal in a power circuit, and the coupling member secures the operational member to a structural member of the system. The method includes detecting an electrical disconnect between the first terminal and a second terminal. The method includes determining a mechanical break associated with the coupling member based on the electrical disconnect between the first terminal and the second terminal. The method includes causing the operational member of the system to stop moving based on determining the mechanical break associated with the coupling member.

[Continued on next page]

WO 2021/134053 A1

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*