



(51) International Patent Classification:

A63G 31/00 (2006.01) *A63G 31/16* (2006.01)
A63G 7/00 (2006.01)

(21) International Application Number:

PCT/US2021/057879

(22) International Filing Date:

03 November 2021 (03.11.2021)

(25) **Filing Language:** English

(26) **Publication Language:** English

(30) Priority Data:

63/113,003	12 November 2020 (12.11.2020)	US
17/491,249	30 September 2021 (30.09.2021)	US

(71) Applicant: UNIVERSAL CITY STUDIOS LLC
[US/US]; 100 Universal City Plaza, Universal City, California 91608 (US).

(72) **Inventors:** CHATRATH, Pratik Sanjay; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **CLARK,**

Benjamin; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **CORTELYOU, Robert**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **ECK, Timothy J.**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **MILLER, Byron C.**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **WINFREY, James B.**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **TERWILLIGER, Ethan**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **COX, Corey**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **DAIMLER, Justin**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US).

(74) Agent: **POWELL, W. Allen** et al.; P.O. Box 692289,
Houston, Texas 77269 (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,

(54) Title: REACTION CONTROLLED SYSTEMS AND METHODS

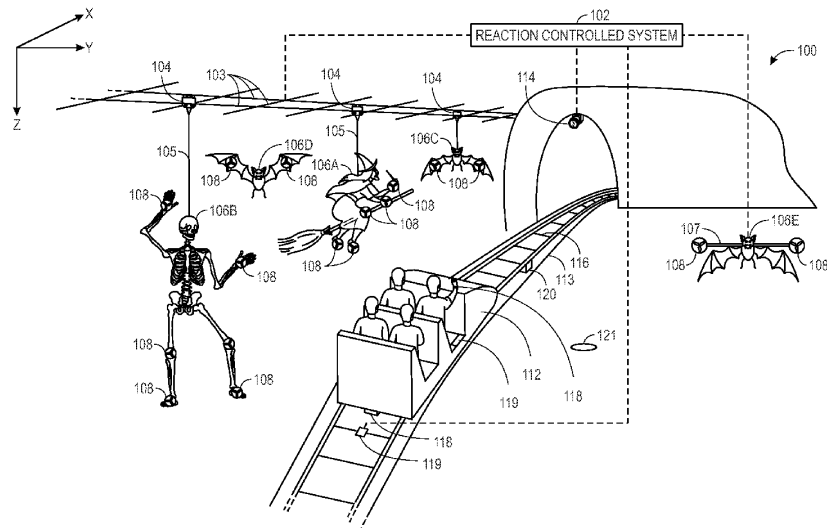


FIG. 1

(57) **Abstract:** A reaction controlled system 102 includes a track, a trolley 104 that travels along the track, an animated figure 106 coupled to the trolley 104, at least one reaction control element 108 coupled to a portion of the animated figure 106 (e.g., on the features, limbs, and/or body of the animated figure 106), and a controller 110. The controller 110 detects presence of a ride vehicle or a guest. The controller 110 also controls the trolley 104 to position the animated figure 106 based on the presence of the ride vehicle or the guest. The controller 110 also controls animation of the animated figure 106 by operating the reaction control element 108.

[Continued on next page]

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.

(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).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*