



US 20230231458A1

(19) **United States**(12) **Patent Application Publication**
GAGNON(10) **Pub. No.: US 2023/0231458 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **LINEAR ACTUATOR SYSTEM FOR MOTION
SIMULATOR****Publication Classification**(71) Applicant: **D-BOX TECHNOLOGIES INC.,**
Longueuil (CA)(72) Inventor: **Stephan GAGNON, Laval (CA)**(21) Appl. No.: **18/001,752**(22) PCT Filed: **Jun. 15, 2021**(86) PCT No.: **PCT/CA2021/050814**

§ 371 (c)(1),

(2) Date: **Dec. 14, 2022****Related U.S. Application Data**(60) Provisional application No. 63/165,319, filed on Mar.
24, 2021, provisional application No. 63/039,078,
filed on Jun. 15, 2020.(51) **Int. Cl.****H02K 41/02** (2006.01)**H02K 7/00** (2006.01)(52) **U.S. Cl.****CPC** **H02K 41/02** (2013.01); **H02K 7/003**
(2013.01); **A47C 15/004** (2013.01)

(57)

ABSTRACT

A linear actuator system may have an actuator assembly for moving an output in translation in a first direction. A transmission has a frame, a joining link(s) pivotally connected to the frame at a first location and operatively connected to the actuator assembly at a second location for receiving movement from the output. The joining link(s) contacting an interface at a third location to cause relative movement between the frame and the interface in a second direction differing from the first direction. A motion platform system is also provided.

