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SHEN et al.(10) **Pub. No.: US 2022/0360212 A1**(43) **Pub. Date: Nov. 10, 2022**(54) **CLEANING ROBOT AND CLEANING METHOD**(71) Applicant: **SUZHOU IFBOT INTELLIGENT TECHNOLOGY CO., LTD.**, Suzhou (CN)(72) Inventors: **Xiangbo SHEN**, Suzhou (CN); **Xiangming DUN**, Suzhou (CN); **Wujun CHEN**, Suzhou (CN); **Zhongliang JING**, Suzhou (CN); **Xiangyong DUN**, Suzhou (CN); **Lei SHAN**, Suzhou (CN); **Xincheng LU**, Suzhou (CN); **Jiageng CHEN**, Suzhou (CN); **Ying GAO**, Suzhou (CN); **Sihai ZHOU**, Suzhou (CN); **Hongbo ZHOU**, Suzhou (CN); **Zhixiong HU**, Suzhou (CN)(21) Appl. No.: **17/629,355**(22) PCT Filed: **Jun. 17, 2021**(86) PCT No.: **PCT/CN2021/100591**

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A cleaning robot includes a supporting mechanism, cleaning mechanisms and a walking mechanism. The supporting mechanism is used for supporting the cleaning robot; the cleaning mechanisms are symmetrically arranged at the two ends of the supporting mechanism and can clean the surface of a photovoltaic panel; the walking mechanism is arranged in the middle of the supporting mechanism and can fix the cleaning robot to the surface of the photovoltaic panel and drive the cleaning robot to move on the surface of the photovoltaic panel; and the supporting mechanism can adjust the cleaning ranges of the cleaning mechanisms, so that the cleaning mechanisms at least have a first cleaning range and a second cleaning range, and the first cleaning range and the second cleaning range can be concentric circles. The cleaning robot is small and exquisite in structure and light. One person can operate multiple robots at the same time.

