BY THE NUMBERS:

RCDBCDTS At your service

More robots are working with—and for humans outside of industrial settings.

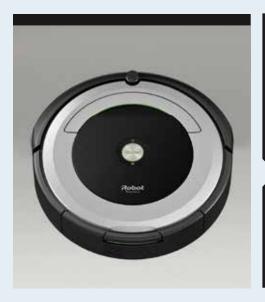


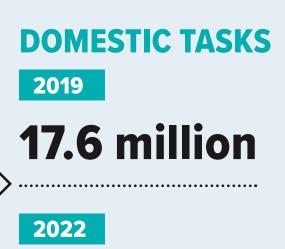
The International Federation of Robotics (IFR), a trade organization in Frankfurt, Germany, each year publishes a report on the state of the industry. The most recent edition of the IFR's World Robotics Service Robots found that the number of service robots being sold is increasing explosively. Some 361,000 professional service robots—those involved in such tasks as warehouse logistics or infrastructure inspection—were expected to be sold in 2019, up from 271,000 in just one year. Meanwhile, an astounding 17.6 million robot vacuums and floor cleaners were sold in 2019, as well as another 4.5 million units in the personal entertainment robots category. In addition to vacuuming, the IFR report identified lawn maintenance as a potential breakout category—think of them as Roombas for grass. Sales of robots for domestic tasks are expected to skyrocket from \$4.6 billion in 2019 to more than \$11.5 billion by 2022.

Over the same period, sales of logistics robots will surpass 700,000 units a year, mostly due to their demonstrated value in warehouse settings. Perhaps the most familiar robot in this class is the Kiva, which rolls through Amazon warehouses transporting items.

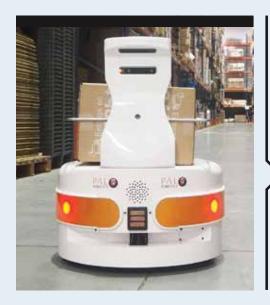
JEFFREY WINTERS

BELOW IS THE FORECAST FOR UNIT SALES OF SERVICE ROBOTS IN 2019 AND 2022, BROKEN OUT BY CATEGORY.



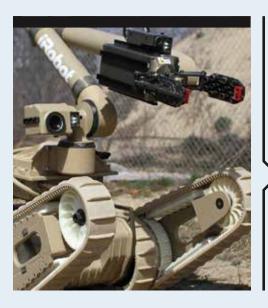


55.1 million



LOGISTICS 2019 176,000

²⁰²²**712,000**



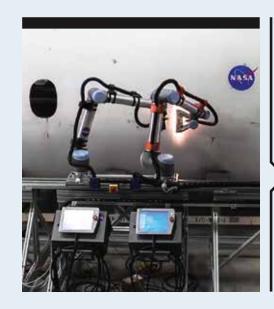


²⁰²² 24,000



PROFESSIONAL CLEANING 2019 10,000









ENTERTAINMENT
2019
4.5 million

2022 6.0 million

INSPECTION 2019 118,000 2022

167,000

PUBLIC RELATIONS 2019 15,000

2022

41,000

FIELD ROBOTICS 2019 8,000











