

AI+ Stair Climbing Robot CT500



AI INTELLIGENT CONTROL

for going upstairs and downstairs and crossing obstacles

XSTO-developed Mengchong technological system, Automatically detects and balances cargo throughout the entire process. Automatic final-step retractable wheels ensure safe, smooth platform transitions.

200%
The adjustment speed
is increased by

The LiDAR builds
3D map in real time

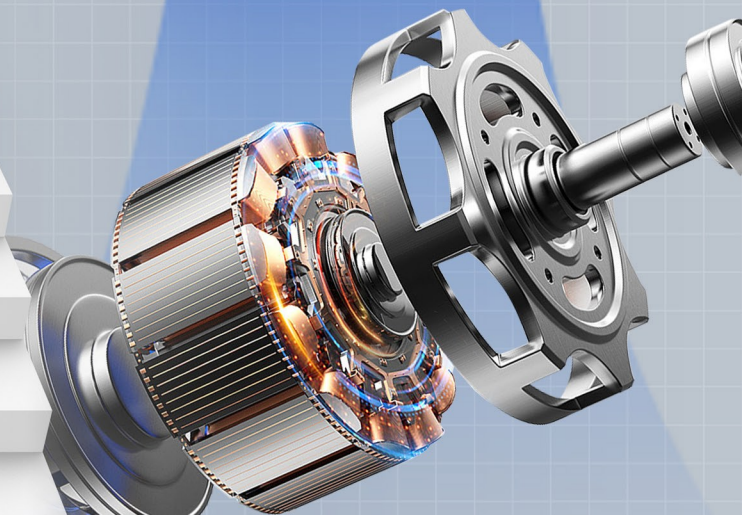
Powerful and Efficient

500kg industrial-grade load capacity,
18 stair steps per minute

Speed is
increased **30%**

Auto-alignment technology

Through gyroscope sensing
combined with LiDAR scanning
for 3D map building,
Auto-alignment technology of
the machine is achieved when
climbing stair direction deviates



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xsto

Flat Ground Mode



Upstairs Mode



Downstairs Mode



Intelligent Mode

One-button quick adjustment of operation mode, simple operation, saving time and effort

All-terrain Adaptability

The chassis wheel and crawler track crawling system are agile in all directions in narrow spaces, realizing seamless switching among stairs, slopes and flat ground

Wireless remote control

A multifunctional Bluetooth controller enables remote control within a range of 6 meters



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OPEN FOR SECONDARY DEVELOPMENT, UNLEASHING UNLIMITED POTENTIAL

Open-source peripheral interface, supports sensors, cameras robotic arms, gas detectors, thermal imaging, cleaning modules, satellite communication etc. Applicable to mapping, inspection, agriculture, photography, environmental protection, firefighting, emergency power, and other professional applications—perfect for customized development.



AI Large Model



Target Tracking



Path Planning



Dynamic Obstacle Avoidance



Multi-point Navigation



LiDAR



Secondary Programming



Multiple Controls

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500kg



100kg



Chassis
powertrain

4 Units



Speed

18 Steps/Minute



Range for
going upstairs

**61-66 Floors
(800-864 Steps)**



Range for
going downstairs

**120-128 Floors
(1700-1800 Steps)**



Landing

U-shaped:2000×1300mm
L-shaped:1100×1200mm
Width:732mm



Step height
and slope

**Height≤210mm
Slope≤35°**



Minimum
turning radius

Crawler track mode:850mm
Flat ground mode:905mm



Width of
crossing ditches

**Crawler track mode
≤350mm**



Climbing slope

≤40°



Sensor types

**LiDAR
Gyroscope**



Lithium battery

48V 10Ah



Charger

**AC100-220V
DC54.6V 4A**



Adjustable straps

6000x55mm



Dimension unit (mm)