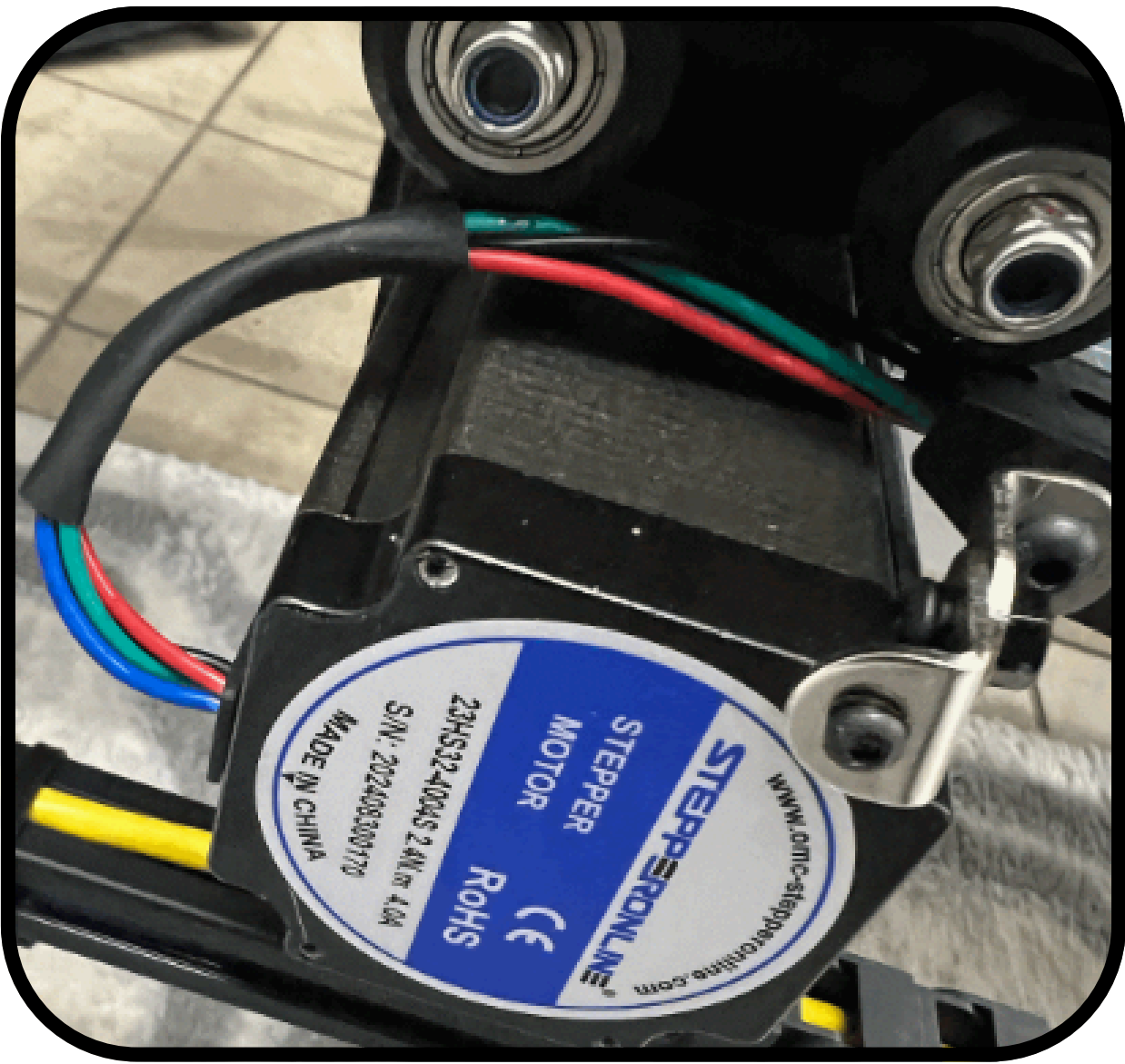
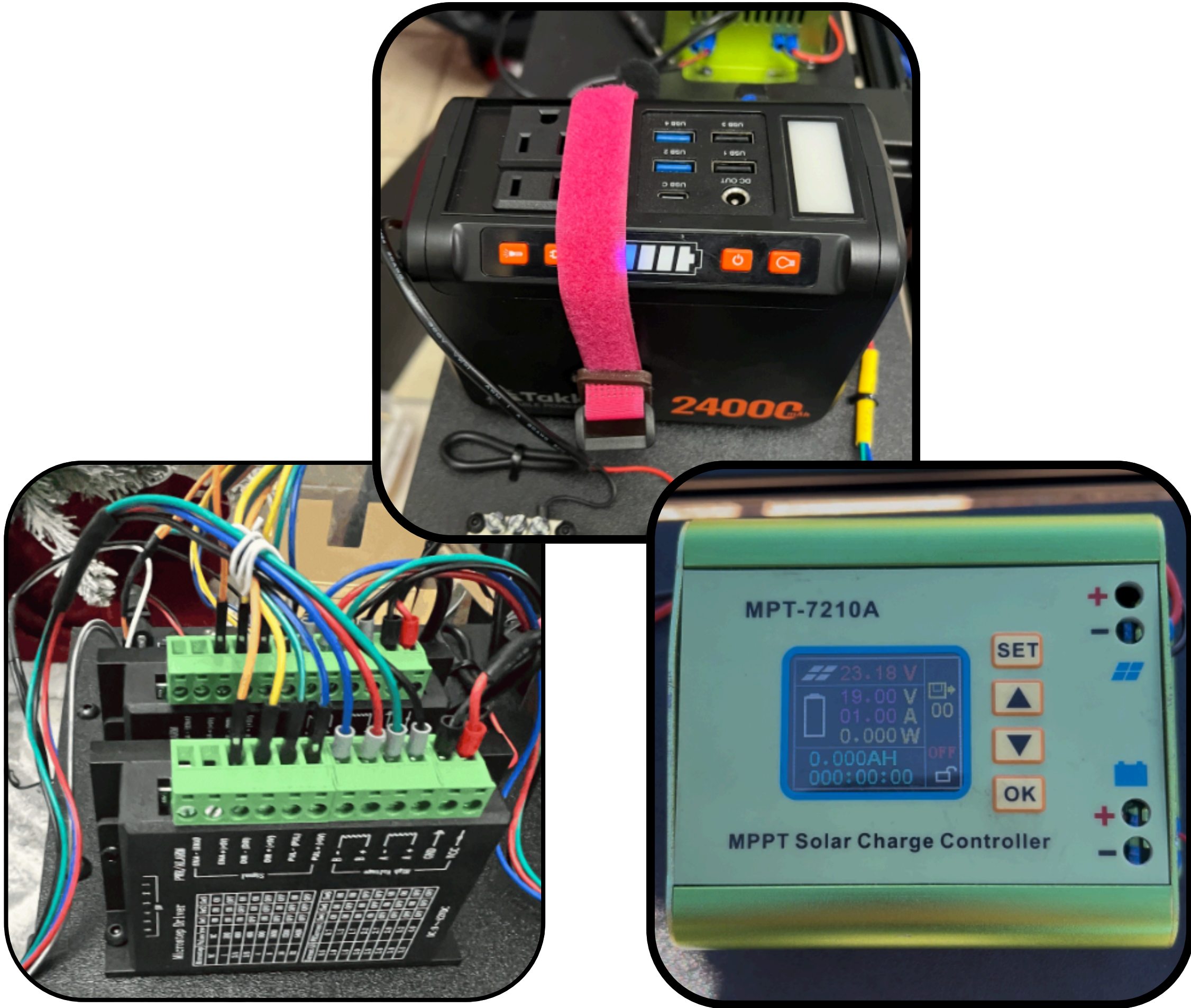


Autonomous Solar Cleaning System

Problem Statement:

Dust accumulation on solar panels can reduce energy output by up to 30%, making cleaning essential yet costly and inefficient.

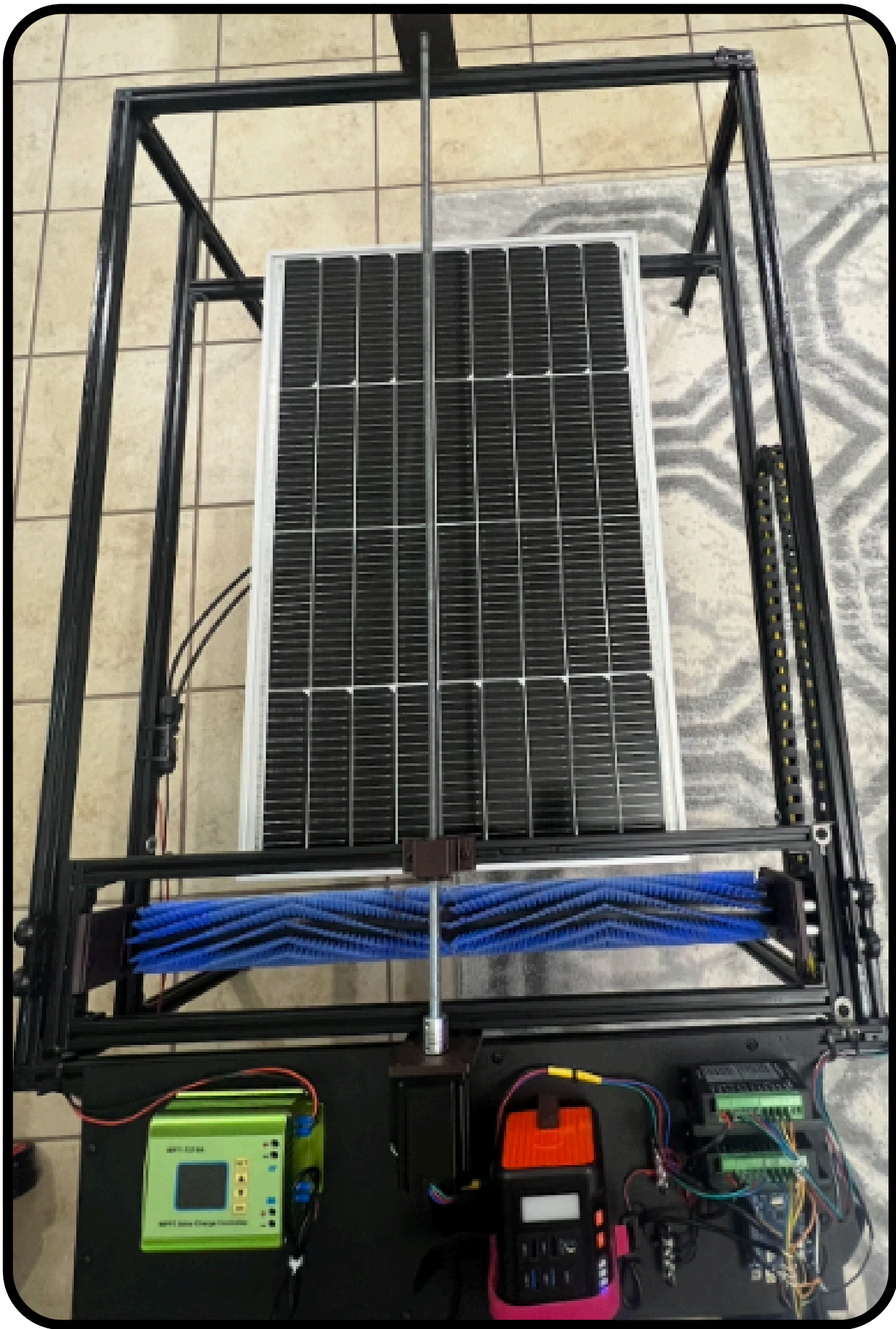


Concept and Theory:

Team 42 developed an autonomous, solar-powered cleaning system for residential rooftop panels that requires no external power and operates independently post-installation.

Final Prototype:

The system was optimized to a small frame with just two motors controlled by an Arduino board. To improve efficiency and affordability, it features two charging options and a solar-tracking panel for maximized energy collection.



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