



Maryland  
Green Registry  
**MEMBER**

The Maryland Green Registry promotes and recognizes sustainable practices at organizations of all types and sizes. Members agree to share at least five environmental practices and one measurable result while striving to continually improve their environmental performance.

# Paladin Automation LLC



20530 Deerwood Park Dr.  
Leonardtwn, MD 20650  
703-278-3775

[www.paladinautomation.com](http://www.paladinautomation.com)

“The Power of Automation, Working for You.”

Aerial Photography and Survey Services

Member since April 2023

## Management and Leadership

### **Environmentally Preferable Products and Services**

*Paladin Automation LLC specializes in unmanned aircraft systems (UAS, or drones) as a Drone Service Provider. UAS provide digital data capture in the visible and invisible light spectra. In the visible spectrum, our services include 2D and 3D mapping—not only does this save a survey team travel to the work site, it also provides meaningful information on soil topology and erosion patterns. Additional products include multispectral survey for plant health analysis and radiometric thermography for thermal leakage analysis, which can help organizations to improve their energy efficiency. These particular products are typically categorized as “Precision Agriculture” and “Energy Conservation”, respectively.*

### **Environmentally Preferable Purchasing**

*Paladin Automation LLC uses a “Buy American” policy. Not only does this support U.S. businesses; it also reduces emissions associated with international shipping and transportation. It is estimated that global freight shipping produces over 2 billion tons of CO<sub>2</sub> emissions annually. We are proud to do our duty as consumers to reduce this to more acceptable levels.*

## Energy

### **Energy Efficiency**

*Using Paladin Automation LLC Precision Agriculture and Asset Inspection services, we conducted a chimney inspection on our own home office that resulted in improvements to increase the heating efficiency of a biomass stove. Aerial photographs of the existing chimney cap and collar revealed material cracks and homebuilder design choices that resulted in poor burning characteristics and inefficient heating. We were able to upgrade to a more energy-efficient chimney system that keeps the home at least 5 degrees warmer without replacing the stove. While we did not have thermal sensors available at the time, our Radiometric Thermal Imaging sensors would have been capable of inspecting the chimney's exterior and all surrounding structure for thermal leakage through micro-fissures in the construction material.*

## Transportation

### **Employee Commute/Customer Travel**

*Paladin Automation LLC offers a web-based storefront for customer capture and retention, so there is no physical facility for customers to travel to. Customers have never had a need to travel to our location--few things frustrate a customer more than making an unnecessary trip for a trivial purpose. Our drone imagery products also give the customer the opportunity to virtually visit a construction site, rental property, or other location of their choosing. We are experimenting with advanced Artificial Intelligence technology that will provide an even more immersive Customer experience, such as Virtual Fly-Through tours and interactive photorealistic 3D models.*

### **Efficient Business Travel**

*Paladin Automation LLC conducts the preponderance of its business from a home-based office. Modern teleconferencing has reduced travel requirements by over 99%. Fiscal year 2022 included monthly meetings with a client located in Washington DC. Had we made the physical commute, this client alone would have cost us over 1,500 road miles that year! As it stood, we conducted as much business virtually as possible. Paladin Automation LLC logged 344 driving miles in 2022 that were not able to be offset through teleconferencing methods—the majority were for drone flights at the job sites.*



*Help build a greener, more sustainable Maryland through voluntary practices that reduce environmental impacts and save money.*

*Learn more at [green.maryland.gov](https://green.maryland.gov)*

