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THE KMA SPEC

Architectural Products & Furnishings

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Our Mecho Automation Edition.



Bringing you up to date on KMA's unique architectural product collection!



And now back to roller shades! In a previous newsletter, we discussed the specification of manually operated roller shades. Then, we followed up in April with outlining the specification of motorized shades. This month we take that one step further to guide your knowledge towards understanding the possibilities of automated shades. Why even bother with automation, you may ask? Where shall we start? The workplace is evolving like never before. Smart employers know that a comfortable, healthy workplace with plenty of daylight makes employees happier and more productive. Read on!

Touchless, Automated Shading Solutions

Mecho provides three tiers of patented automation solutions to control daylight. So no matter the size of project, Mecho has the versatility to provide solutions for a single room, an individual floor, a whole building or an entire campus. Here, we'll outline these options so you'll know what is the best choice for your project.

A. SolarTrac 4.0. This is Mecho's most comprehensive solution for automation of shades and your best choice for large projects as it allows for control for up to 1,000 shade zones. Proprietary algorithms are used to plot the sun's solar impact at any given moment based on the date, time, building GPS location, and glass facade orientation. This information is combined with data from rooftop radiometers that monitor real-time sky conditions and the entire light spectrum, (not just visible light) to calculate BTU loads on every window.

SolarTrac 4.0 is a BACNet certified system compatible with all major building automation systems. Supporting smart phone access, the PC-based program accommodates up to 100 simultaneous users. Use the browser interface to navigate between floors, zones, and smart shade motors. Display an interactive floor plan for visibility of all commercial shade zones and motors, checking status or overriding positions when needed. The automatic shade system's self-diagnostics alert potential maintenance needs. Custom zone and motor settings can be easily configured.

B. SunDialer® WindowManagement® System

If you are working with a smaller scale or retro-fit project and are looking for a cost-effective automated solution, consider Mecho SunDialer. Here's how it works:

- Two roof-mounted radiometers monitor the sun and sky conditions in real-time. The PC based software automatically adjusts shades to prevent solar-heat gain, brightness, and glare.
- Controls up to 12 shade zones with continuous minute/day/year analysis,
- Operates in tandem with other manufacturers' electric-lighting controls, allowing light levels to be adjusted based on the amount of daylight the shades allow into the space.
- Through a controller based interface, easily locate and manually override any individual shade or shade zone based on occupant comfort preferences. This is a smaller scale version of automation. (Much like SolarTrac 4.0.) [See SolarLinc™, Mecho's newest automation solution, next page.](#)



Advantages of Automated Shades

- Touchless technology is key in a post-Covid world. Eliminating or reducing touch points in the built environment is shown to decrease the transmittance of virus and bacteria.
- Daylight and views are maximized as much as possible while eliminating glare making for a more comfortable workplace.
- Automated shading systems may be integrated into third-party building management systems for ease and convenience of the end-user.
- Proper shade and insulation control = improved HVAC performance. In most buildings, incorporating daylighting strategies creates energy savings from 15-40%. That's return on investment!

Below: A Mecho rooftop radiometer monitors sky conditions to automatically adjust shades.



Get Started on Specifying Automated Mechoshades.

Visit: <https://www.mechoshade.com/resources/specifications/>



C. SolarLinc™ is Mechoshade newest and easiest solution for automation.

Lastly, **SolarLinc™** is the ideal affordable, automated shade solution engineered for smaller rooms or to retrofit existing commercial motorized shades to become automated.

SolarLinc enables common spaces like lobbies to have touchless automated shade positioning for optimal daylight harvesting, minimizing heat gain and maximizing energy savings. This commercial system can also be programmed to monitor room occupancy, maintaining privacy, and supporting users' shade control preferences. SolarLinc is designed for both AC and DC motors. SolarLinc makes a lot of sense if just one space in a project requires automation.

Below: Components for the SolarLinc system.



How SolarLinc™ Works:

- The wireless daylight sensor monitors external conditions to mitigate glare while the occupancy sensor monitors the room occupancy state to provide energy conservation. The sensors connect wirelessly to the MechoNet Wireless Controller that mounts out of sight. A wireless Mechoshade wall switch is optional to override controls.
- The MechoNet Wireless Controller for SolarLinc connects directly to the solar shade motors. Occupancy and daylight control sensors connect wirelessly to the controller. Wireless connection creates simplified installation and flexible customization for evolving room or layout enhancements.
- SolarLinc is maintenance-free commercial shade automation. The wireless daylight sensors are solar-powered, removing the need to change batteries, ever!

SolarLinc can support energy savings and minimize additional reliance on electricians at installation. The daylight sensor can trigger the shades down at night to reduce light pollution which helps with LEED credits and privacy.

	Tier 1	Tier 2	Tier 3
	SolarTrac	SunDialer	SolarLinc
Window Daylight sensor	✓	✗	✓
Occupancy sensor	✗	✗	✓
Schedule timed event	✓	✓	✗
BACnet	✓	✗	✗
Plug & Play Install	✗	✗	✓
Max Zones	Unlimited	12/per* to 24	Range depending >16 devices

Coming Attractions! Later this month, KMA & Associates will be partnering with **Unika Vaev** to offer our design community a free webinar CEU on the matter of acoustics. The World Health Organization, (WHO) has described unwanted workplace noise as an “underestimated threat” contributing to stress, high blood pressure, cardiovascular disease, dementia, and diabetes. Designing with consideration of acoustical improvements shows a commitment to the well-being of our end-users. Unika Vaev is a top source for acoustical products, textiles, and rugs. Please watch your in-box for further announcements.



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