







# LEED® v4 New Construction, Core and Shell, Schools, and Healthcare

Category and Credit: Version 4	Potential Points	Description of MechoSystems Contribution
<b>Integrative Process</b>  Beginning in pre-design and continuing throughout the design phases, identify and use opportunities to achieve synergies across the disciplines and building systems including shading, glazing, lighting levels, and thermal-comfort ranges.	NC, CS, S: 1 HC: 1-5	Energy-modeling analysis creates opportunities to reduce energy loads in the building and accomplish related sustainability goals. MechoSystems can develop an input file for the MEP that will cost-effectively add shade automation to the building's modeling program, saving time needed for the MEP to include automated-shade control.
<b>Energy and Atmosphere</b> Optimize Energy Performance  Establish an energy-performance target no later than the schematic-design phase. Must establish target as KBTU/sq. ft.-year (KW/sq. m-year) of the source energy use.	NC, CS: 1-18 S: 1-16 HC: 1-20	MechoSystems' SolarTrac® and SunDialer® Systems are designed to automatically adjust shade-band positions incrementally, according to real-time microclimatic sky conditions. Automatically controlled interior shading devices and daylight-responsive lighting-control systems can be modeled for credit in the Proposed Design per ASHRAE Standard 90.1 Appendix G.
<b>Materials and Resources</b> Building Product Disclosure and Optimization—Material Ingredients  Option 1: Material Ingredient Reporting Option 2: Material Ingredient Optimization	NC, CS, S, HC: 1-2, EP	The Mecho®/5 and UrbanShade® manual roller-shade systems with EcoVeil® shade cloth are Cradle to Cradle (C2C) v2 Certified <sup>CM</sup> Silver, the only complete C2C-certified shade systems. MechoSystems continues its commitment to material transparency through the publication of Health Product Declarations (HPDs). HPDs that disclose known hazards and ingredients are continuously developed. Please contact your local representative for the most recent list of products with HPDs.
<b>Indoor Environmental Quality</b> Thermal Comfort  Promote occupants' productivity, comfort, and wellbeing by providing thermal-comfort design and thermal-comfort control.	NC, CS, S, HC: 1	Manual-, motorized-, and automated-shade systems with override capabilities allow occupants to deploy appropriate shade-band heights to help reduce radiant temperature.
<b>Indoor Environmental Quality</b> Daylight  Connect building occupants with the outdoors, reinforce circadian rhythms, and reduce the use of electrical lighting by introducing daylight into the space. Provide manual or automatic (with manual override) glare-control devices for all regularly occupied spaces.	NC, CS, S: 1-3 HC: 1-2	Shading, both manual and automated, can be used for this credit. Certain shade cloths can be specified to illuminate the space and also to manage the glare and contrast ratios. SolarTrac and SunDialer Systems are designed to automatically adjust shade-band positions incrementally and according to real-time microclimatic sky conditions.
<b>Indoor Environmental Quality</b> Quality Views  A direct line of sight to the outdoors is achieved via vision glazing for 75% of all regularly occupied floors of a building.	NC, CS, S: 1, EP HC: 1-2, EP	Automated shades are programmed to maximize vision glazing for occupants. The SolarTrac System lower shades only to protect occupants from uncomfortable glare and solar-heat gain. This ensures occupants consistently achieve a direct line of sight to the outdoor environment.

**Key:**

- NC = New Construction
- HC = Healthcare
- CS = Core + Shell
- S = School
- EP = Exemplary Performance Available

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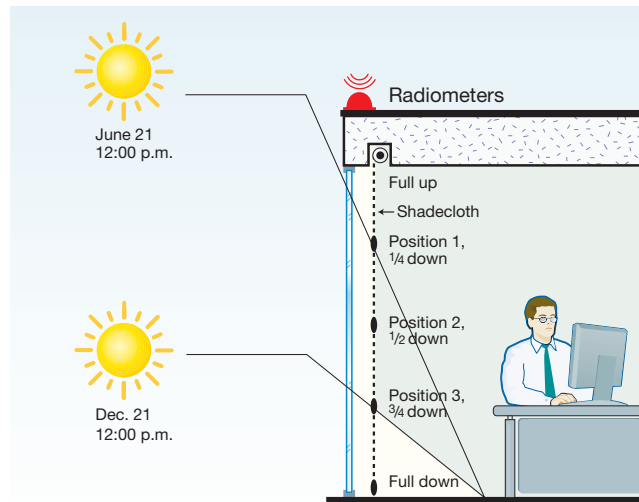
## Design Strategies from MechoSystems

### SolarTrac® and SunDialer®

#### Cutting-edge and economical systems

They are designed to automatically adjust shade-band positions incrementally, according to real-time microclimatic sky conditions. Both systems maximize daylighting opportunities while retaining views to the outside and reducing the BTU load on the building envelope. They adjust shade-band positions to provide significant reductions in energy-peak demands over the systems' lifetimes. For special conditions, a manual override switch or touch screen is available as an option.

SolarTrac is ideal for large-scale applications, while SunDialer is appropriate for smaller and retrofitted projects.



### MechoAutomation

#### Shades up, lights down

An automated-shading and lighting-control system ensures that electrical-lighting is as energy efficient as possible. The complete lighting-control system operates in response to SolarTrac to set appropriate electrical-lighting levels for each zone in a building through predetermined strategies, override controls, and lighting sensors. For additional energy-saving design strategies, consult a MechoSystems representative.



### EcoVeil®

#### Naturally inspired shade cloths

This shade cloth is the first environmentally certified product of its kind. It is a PVC-free shade cloth that is reclaimable, fully recyclable, and UV-resistant. EcoVeil is Cradle to Cradle v2 Certified.



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