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MITSUBISHI HEAVY INDUSTRIES

Prismo CRYSTAL MOVER

Prismo
CRYSTAL MOVER



MOVE THE WORLD FORW>RD

MITSUBISHI HEAVY INDUSTRIES GROUP

MITSUBISHI HEAVY INDUSTRIES

Prismo

CRYSTAL MOVER



Mitsubishi Heavy Industries is proud to introduce “Prismo,” the next-generation of its safe, reliable, and service proven Crystal Mover APM (Automated People Mover) technology.
Driving sustainability and innovation for the future of urban mobility.

Key Features of Prismo

Next-generation energy management
Combines fast charging with onboard energy storage.

1



Prismo
CRYSTAL MOVER



Reduced maintenance workload
Current-collection equipment, overhead catenary, etc.
Significant reduction in inspection and replacement of electrical equipment.

4



Compact infrastructure
Center guide steering and onboard energy storage allow for a slimmer guideway.

2

For any country, any city
Minimizes system curve radius and allows for steep gradients.

5

22
10

A more eco-friendly APM
Manufactured at our carbon-neutral plant using 100% solar power.

3

1. Next-Generation Energy Management



Rapid charging during station dwell.

Efficient energy use for carbon neutral mobility future.
Advanced energy management features enhance environmentally-friendly operations.

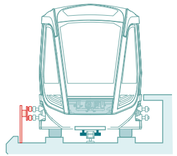
Feature 1

Run, store, and use energy intelligently — Prismo Energy Management.
By integrating rapid charging and regenerative power control onboard, the system enables operation without overhead catenary over typical station intervals (approx. 2 km).
Operating energy consumption is reduced by approximately 10%* compared to conventional APM systems.
High-performance capacitors optimized for APM applications ensure long life, high safety, and reliable operations, even during power outages.
*Values are relative to our previous airport APM systems.

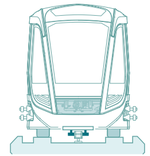


No power supply required between stations.

- System operation powered by rapid charging during station dwell.
- In the unlikely event of a power outage, continued operation to the next station.
- Storage module featuring long life and high-level safety with an extremely low risk of ignition.

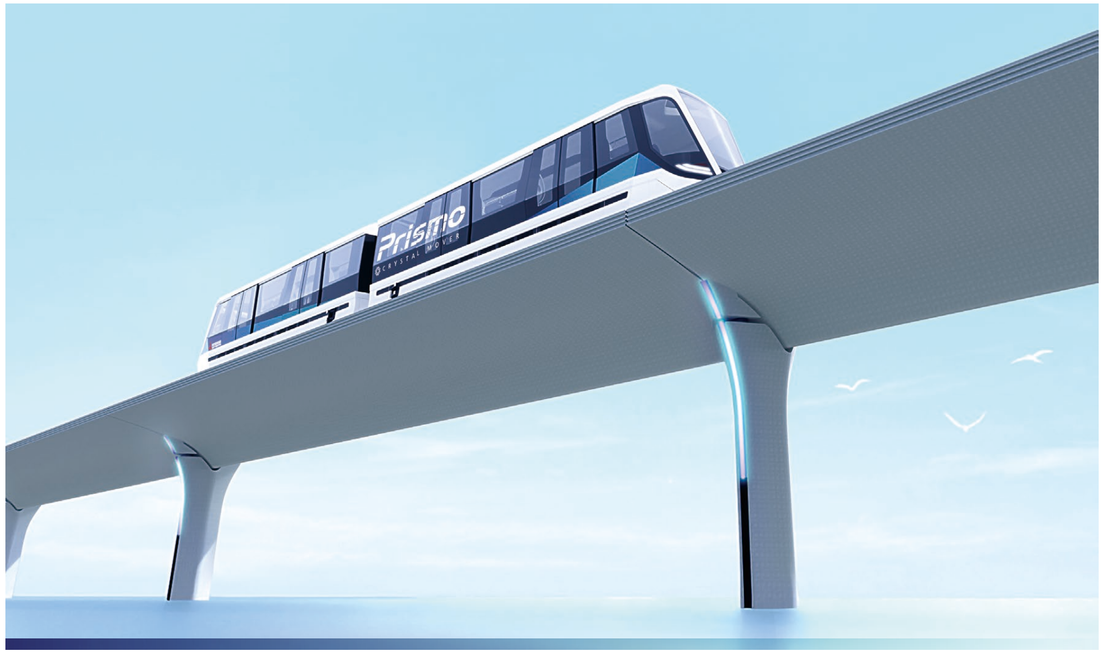


Rapid charging during station dwell.



Catenary-free operations between stations.

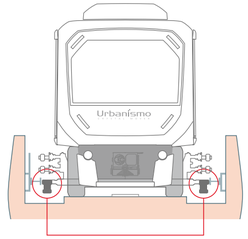
2. Compact Infrastructure



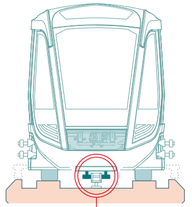
A slimmer guideway through the adoption of center guide steering and catenary-free operation.
Contributes to reduction in capital investment and maintenance costs.

The two guide rails traditionally required on either side of the system are now consolidated into a single center guide rail.
Furthermore, as rapid charging is performed during station dwell, power rails between stations are completely eliminated.
In addition to reducing construction costs for civil structures, this approach improves visual aesthetics by incorporating slimmer, less obtrusive infrastructure.

Urbanismo
CRYSTAL MOVER



Side Guidance



Center Guidance

Prismo
CRYSTAL MOVER





- **Slimmer guideway structures enabled by a center guide steering and catenary-free operation between stations.**
- **Reduced capital investment and maintenance costs.**
- **Improved visual appearance.**

3. A Eco-friendlier and More Sustainable APM

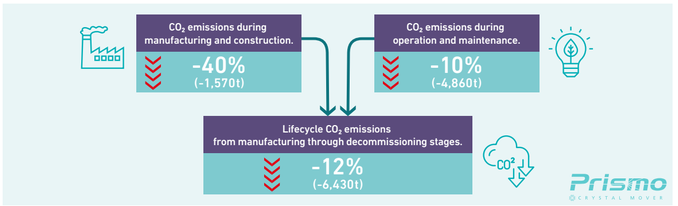


Mitsubishi Heavy Industries — Wadaoki Plant, Mihara

Prismo reduces CO_2 by 12% over its entire lifecycle (equivalent to 6,430 tons over 30 years of airport APM system operations). Vehicles will be manufactured at a carbon-neutral plant powered 100% by solar energy, reducing CO_2 emissions by 10,000 tons per year.

Feature 3





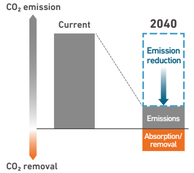
- Prismo is manufactured at the "Carbon Neutral Transition Hub Mihara", where all required electricity is supplied by solar power and CO_2 emissions have been reduced by 97.4%.
- Achieves 40%+ CO_2 reduction* in manufacturing and construction versus conventional APMs.
- Reduces CO_2 emissions by 12% over the entire lifecycle.

(*Values are relative to our previous airport APM systems.)

MITSUBISHI HEAVY INDUSTRIES

MISSION NET ZERO — Mitsubishi Heavy Industries Group

In our 2021 Business Plan announced in October 2021, the Mitsubishi Heavy Industries Group declared "MISSION NET ZERO" to achieve carbon neutrality by 2040.
Achieving a carbon-neutral society is a global challenge. As a proven leader with proven experience in decarbonization across a variety of industries and products, it is our mission to lead climate change. Each member of the MHI Group will actively collaborate with customers, business partners, national and local governments, and research institutions.
With "MISSION NET ZERO" MHI will continue to promote the realization of a carbon-neutral society.





4. Reduced Maintenance Workload

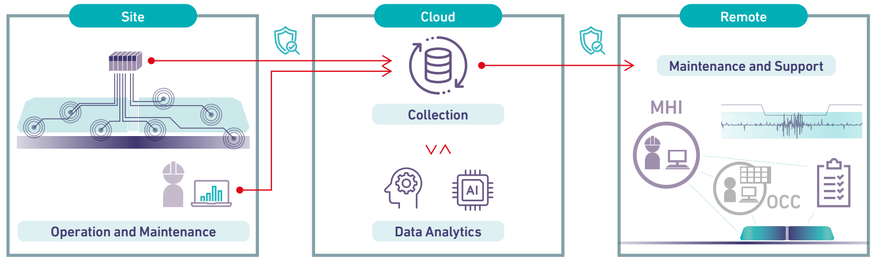


By reducing overhead catenary and civil infrastructure , maintenance costs can be lowered.
With the introduction of ΣSynX®(Sigma SynX), it becomes possible to collectively manage vehicle condition data.
By using ΣSynX®, the condition of the vehicle can be accurately monitored, allowing proactive measures to be taken before problems occur and for early identification of causes should any issues arise.

Feature 4

ΣSynX Supervision

"ΣSynX" is a digital-innovation brand built on the concept of "smart connections", with the goal of enhanced collaboration between people and machines. Based on the vast amount of accumulated data — from product insights to operation and maintenance — MHI aims to create new value by combining ΣSynX® with the expertise possessed by us.



Condition monitoring data from each vehicle and facility, together with daily maintenance records, are aggregated in the cloud.
Through data analysis, the system supports optimal maintenance planning and failure prediction, helping to maintain stable operations.

- Optimize the replacement frequency of vehicle components through monitoring.
- Increased availability and streamlined operations and maintenance through condition, remote monitoring of in-service vehicles.

5. For Any Country, Any City

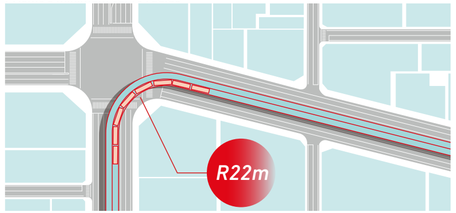


Supports steep gradients and small-radius alignments, enabling flexible route planning even in constrained urban areas.

By accommodating a minimum curve radius of 22m and a maximum gradient of 10%, the system fits topographies with significant elevation changes, including elevated and underground sections.
In addition, low-noise operation with rubber tires provides a comfortable operating environment in residential areas.

- Minimum curve radius: 22m
- Maximum gradient: 10%
- Low-noise rubber-tire operation suitable for residential areas.

Prismo's minimum curve radius



MHI APM

Mitsubishi Heavy Industries
Automated People Mover



1 Dubai International Airport APM



2 Singapore Changi Airport PMS (APM)
Skytrain



3 Sengkang and Punggol LRT
Singapore



4 Macau LRT
Ocean Cruiser



5 Hong Kong International Airport APM



6 Incheon International Airport APM
Korea



7 Hiroshima New Transit Line 1
Astram Line (7000 Series)



8 Tokyo Waterfront New Transit Waterfront Line
Yurikamome (7500 Series)



9 Saitama New Urban Transit New Shuttle
(2020 Series)



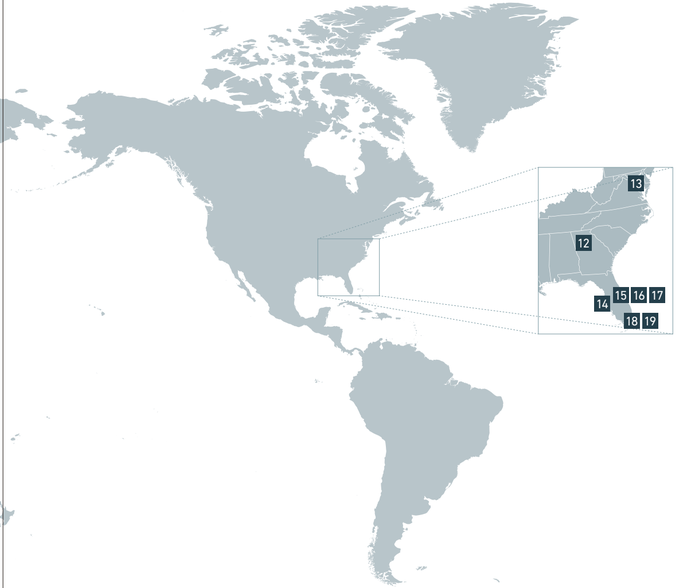
10 Nippori-Toneri Liner (Model 330)



11 Seibu Railway Yamaguchi Line
Leo Liner



Crystal Mover



Crystal Mover Urbanismo Prismo



12 Hartsfield Jackson Atlanta International Airport APM
ATL SkyTrain



13 Washington Dulles International Airport APM
AeroTrain



14 Tampa International Airport APM
SkyConnect



15 Orlando International Airport APM
Airside 1



16 Orlando International Airport APM
Airside 3



17 Orlando International Airport APM
South Airport Terminal Link



18 Miami International Airport APM
MIA Mover



19 Miami International Airport North Terminal APM
Skytrain