

Trains will be driverless, operated through remote control & sensors

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The Metro 3 authorities plan to operate their trains in driverless mode a few months after the entire corridor opens for commuters in July 2024. Mumbai Metro Rail Corporation (MMRC) has ordered 31 eight-coach rakes from Alstom, which is manufacturing them at its facility in Sri City, Andhra Pradesh.

Underground cable lines covering a distance of 14km are being installed to control the driverless trains on Metro Line 3. An official stated that the system will function similar to air traffic control, with software controlling train movements while engineers monitor operations from the control building.

A senior MMRC official said, "Initially, these trains will be run with a pilot, but after a few months, we plan to

MMR'S FUTURE METRO LAYOUT

The state has a timeline till 2041 for all proposed lines to be live

Line No	Line Name	Proposed depot locations
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- | | | |
|--------------|--|-----------------------------------|
| 1 | Versova-Andheri-Ghatkopar | Versova (completed) |
| 2A | Dahisar-D N Nagar | Malwani (completed) |
| 2B | DN Nagar-Cheetah Camp | |
| 3 | Colaba-Aarey | Aarey Colony (under construction) |
| 4-4A, 10, 11 | Wadala-Gaimukh Gaimukh-Mira Road Wadala-CSMT | |
| 5 | Mogharpada | Thane-Kalyan Kongaon |
| 6 | SSN-Vikhroli | Kanjurmarg |
| 7 | Dahisar (E)-Andheri (E) | Dahisar |
| 8 | Airport Metro (CSIA-NMIA) | Raj Murdhe |
| 9 | Dahisar (E)-Bhayandar | Khopra in Uttan |
| 12 | Kalyan-Taloja | Pisarve in Navi Mumbai |
| 14 | Kanjurmarg-Badlapur | Badlapur |



seek approval from the Commissioner of Metro Rail Safety to operate in driverless mode."

Delhi Metro Rail Corporation (DMRC) has already introduced driverless train operations (DTO) on 97km since 2020. Only 7% of the world's Metros run with DTO.

In DTO, the starting and stopping of the train is auto-

mated, but the train operator operates the doors and drives the train in case of any emergencies. This allows the operator to monitor the health and performance of the train instead of focusing on driving. DMRC has won the contract to operate Metro 3 services.

Anuj Dayal, executive director, corporate communica-

tions, DMRC, said, "The implementation of DTO will provide greater flexibility in train operations, reduce human intervention and minimize human errors. It will also improve the availability of coaches for service and eliminate the need for manual checks before induction, reducing the burden on train operators. Automatic parking on stabling lines in depots will also be enabled."

MMRC's rake is equipped with an unattended train operation (UTO) system, which fully automates the starting, stopping, door opening, and handling of emergencies without any on-board staff. Train health is monitored from the control room.

Apart from saving on staff costs, the greatest benefit of automation is that train services can be tailored to demand, allowing for trains to be quickly brought into service as per trends.