

DELHI-NCR

BHARAT IS YOUR CLASSROOM



HAVELLS × MASTERS' UNION CONSULTING CHALLENGE

Beyond the Robots

Orchestrating Havells Ghiloth's leap into Industry 5.0

DELHI NCR · PGP BHARAT INDUSTRY IMMERSION

India's flagship smart factory, at an inflection point

In December 2021, Havells India inaugurated its greenfield Ghiloth plant in Rajasthan, showcased as the country's "industry-first" Industry 4.0 manufacturing facility for Lloyd air conditioners and washing machines, with NITI Aayog CEO Amitabh Kant presiding over the launch.

Spread across roughly 2.2 million square feet, the facility was engineered around a robotic press shop, AGVs, IoT-linked embedded systems, and a Dassault-powered Manufacturing Execution System that tracks production in real time and enables paperless, remotely monitored operations.

The plant also carries an IGBC Gold Green Building rating, harvests rainwater for ground recharge, recycles waste through segregated organic and inorganic streams, and draws roughly 40% of its energy from a rooftop solar photovoltaic system spanning the entire roof.

2.2M

SQ. FT. FACILITY

15L

TARGET AC UNITS / YR

40%

ENERGY FROM ROOFTOP SOLAR

By 2025, capacity expansions had pushed AC output from 9 lakh toward 15 lakh units annually, with Havells committing an additional Rs 50 to 60 crore investment, while a separate 2022 expansion added Rs 130 crore for washing machine capacity.

SCENE · JULY 2026

Havells' senior leadership is flush with the plant's success in cycle-time reduction, quality consistency, and its role as a "Make in India" showcase. Rival appliance makers are experimenting with cobots that let line workers control precision tasks, D2C brands are demanding hyper-customized SKUs in weeks rather than quarters, and ESG-linked financing is rewarding manufacturers who go beyond "Gold-rated" plaques toward genuine net-zero and circular operations.

The leadership team realizes that Ghiloth's next chapter cannot simply mean more robots and more automation. It must mean orchestrating people, planet, and machines as equal partners in a resilient, Industry 5.0 ecosystem.

Ghiloth stands as one of India's most celebrated Industry 4.0 showcases: high OEE, robotic precision, and MES-driven data visibility have made it a benchmark for automated manufacturing in the appliance sector.

Yet this very success has created a strategic blind spot: a factory optimized for machine efficiency, but not yet designed for human dignity, ecological closure, or demand-side agility. As Havells scales capacity, three structural tensions threaten to constrain its next decade of growth.

TENSION 01 · HUMAN-CENTRICITY GAP

Automation as substitute, not collaborator

The current model treats automation as a replacement for labor rather than a collaborator with it, raising questions of how frontline workers can be re-skilled into cognitive problem-solvers who supervise, correct, and co-work with cobots, while safeguarding ergonomic health and mental well-being.

TENSION 02 · SUSTAINABILITY CEILING

Gold-rated, but still linear

Despite genuine gains like IGBC Gold certification, rainwater harvesting, and 40% solar dependency, Ghiloth remains linear in material flow and only partially decarbonized: how could post-consumer plastic and metal scrap re-enter production, and how does the remaining 60% of energy demand get weaned off the grid toward genuine net-zero?

TENSION 03 · RESILIENCE DEFICIT

Built for volume, not volatility

Rigid, high-throughput lines are tuned for standardization, not the climate-driven demand spikes or SKU proliferation (~50 AC SKUs, ~20 WM models) that Lloyd's strategy increasingly requires: how can re-tooling and changeover happen in hours, not weeks, without eroding OEE?

FIELD NOTE · GEMBA WALK

Students may add operational enhancement measures observed during the Gemba walk. Bonus points for suggestions that advance smart manufacturing operations.

Students must design an actionable, phased blueprint that repositions Ghiloth as an Industry 5.0 exemplar.

- a** Architects a human-cobot collaboration model with clear reskilling pathways and well-being safeguards.
- b** Engineers a closed-loop, near-net-zero circular economy roadmap building on the existing IGBC Gold and solar base.
- c** Redesigns line architecture and supply chain protocols for rapid, low-cost reconfiguration in response to demand shocks, all while preserving the operational efficiency gains that made Ghiloth a national showcase.

Students must justify sequencing, estimate investment versus payback, and address organizational resistance from a workforce and leadership culture deeply anchored in automation-first thinking.

Submission Guidelines

Presentation Format	Submit your PPT as a PDF presentation.
Slide Limit	Not to exceed 5 slides, excluding the annexure.
Team Formation	Form your own teams of 5. Since there are 54 students, one team will have 4 members.
Evidence-Based Recommendations	Support recommendations with relevant data, research, assumptions, or frameworks.
Practicality	Solutions must be realistic, implementable, and create measurable business impact.
Clear Communication	Concise, structured, visually clean slides. Avoid excessive text.
Original Work	All submissions are original team work. Cite any external sources or data used.
Naming Convention	Save your file as Team Name_Havells_ODC.
Submission & Communication	Submission forms will be shared separately. All communication related to submissions will be conducted via WhatsApp groups.

