GrayMatter Robotics (GMR)

Factory SuperIntelligence (FSI) for Manufacturing

PROBLEM STATEMENT

- **Skilled labor gap:** naval shipbuilding and repair rely on skilled workers for surface finishing and other contact-intensive manufacturing processes.
- **Throughput limits:** demand for these skills exceeds supply, which constrains schedule and capacity across yards and suppliers.
- **High-mix variability:** large structures and low-volume work vary from part to part, so outcomes depend on individual experience.
- **The need:** extend the reach of experienced workers and deliver consistent results on every part.

BENEFITS

- **4 to 12x** cycle time improvement on targeted manufacturing processes.
- **Worker augmentation:** experienced workers direct and supervise cells and focus on higher-value work.
- **Consistent results:** every part receives a repeatable, predictable process and finishing.
- **Added capacity:** more output from existing yards, workforce, and floor space.
- **Readily available expertise:** GMR's Factory SuperIntelligence (FSI) enables workers best-in-class capabilities with minimal workforce training required.

TECHNOLOGY SOLUTION

- **Physical AI:** GMR builds Physical AI that perceives, plans, and executes manufacturing processes.
- **GMR-AI:** scans each part and generates process paths for that part.
- **Curie:** an AI-enabled agent that discovers and refines process parameters from embodied data.
- **APEX Cell:** mobile, reconfigurable deployments bring capability to the part and factory flexibility.

GRAPHIC

CAD-free, autonomous application examples



Sanding & Grinding | Blasting | Paint Coating