

01 — THE CHALLENGE

Emaar manages some of the world's most prestigious outdoor spaces — Downtown Dubai around Burj Khalifa, Dubai Mall surrounds, Dubai Marina, and Arabian Ranches communities spanning 50,000+ homes across 10+ master-planned developments. With 141 million sq ft of new land acquired in 2024 and AED 35.5 billion in revenue (+33% YoY), the portfolio is scaling fast. Yet outdoor litter collection in these premium environments still relies on manual labour — expensive, inconsistent, and difficult to staff at the quality Emaar's brand demands. After winning "Sustainable FM Organization of the Year" (MENA Green Building Awards, November 2024), Emaar is positioned to lead on the next generation of sustainable facilities management.

02 — OUR SOLUTION

CleanWalker is the world's first commercial quadrupedal litter-collecting robot, engineered for Gulf premium property environments:

- **AI-powered detection** across 20+ litter categories (25,000+ real-world images)
- **Gulf heat tolerance** — operates up to 45°C with multi-shift capability (20+ hours/day)
- **Four-legged locomotion** navigates landscaped pathways, grass, gravel, sand, pool deck surrounds
- **Silent operation** (<55 dB) suitable for residential communities and retail promenades
- **Fleet dashboard** with real-time monitoring and litter composition analytics

Collected waste is bagged for existing facilities collection routes — no new infrastructure required.

03 — PILOT PROPOSAL — 10 UNITS, 6 MONTHS

**Deployment zones:** Downtown Dubai Boulevard, Dubai Marina Walk, and one Arabian Ranches community

KPI	TARGET
Litter items collected per unit/day	Tracked & reported weekly
Coverage per shift	2,000–4,000 m²/hr per unit
System uptime in Gulf conditions	>90%
Resident/guest satisfaction	Survey baseline + post-pilot
Coverage hours vs. manual	20+ hrs/day autonomous vs. shift-limited manual

04 — VALUE PROPOSITION

1.5-2.5 FTE OFFSET PER UNIT
40-60% COST REDUCTION AT SCALE
RaaS ROBOT-AS-A-SERVICE MODEL
Zero HARDWARE OWNERSHIP REQUIRED

A CleanWalker robot patrolling the Burj Khalifa boulevard is not just a cleaning solution — it is a global brand statement. Emaar's Innovation Challenge shows appetite for pioneering technologies. Deploying the world's first quadrupedal litter robot across Downtown Dubai would generate immediate international media coverage and position Emaar as the global leader in autonomous premium property maintenance.

cleanwalkerrobotics.com

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