

COST STRUCTURE ANALYSIS

Polar Bot X300 Autonomous Mobile Robot

CONFIDENTIAL AND PROPRIETARY

Polar Dynamics Robotics, Inc.

Document Date: January 11, 2024

1. EXECUTIVE SUMMARY

This Cost Structure Analysis details the component-level costs, manufacturing expenses, and total cost basis for the Polar Bot X300 autonomous mobile robot system ("X300"). This analysis has been prepared by the Finance Department of Polar Dynamics Robotics, Inc. in accordance with GAAP standards and validated by independent cost accounting firm Davidson & Associates, LLP.

2. CORE COMPONENT COSTS

1. Proprietary Components

- IceNav(TM) Processing Unit: \$3,850/unit
- Cold-Resistant Actuator Assembly: \$4,275/unit
- Thermal Management System: \$2,950/unit
- Battery Management System: \$1,875/unit

2. Third-Party Components

- LiDAR Sensors (2): \$1,650/pair
- Industrial Motors (4): \$2,400/set
- Control Electronics: \$1,925/unit
- Safety Systems: \$1,350/unit

3. Structural Components

- Chassis and Frame: \$2,750/unit
- Environmental Sealing: \$875/unit
- Exterior Panels: \$925/unit
- Mounting Hardware: \$450/unit

3. MANUFACTURING COSTS

1. Direct Labor

- Assembly Labor: \$2,850/unit
- Quality Control: \$975/unit
- Testing and Certification: \$1,250/unit

2. Manufacturing Overhead

- Facility Allocation: \$1,475/unit
- Equipment Depreciation: \$925/unit
- Production Management: \$850/unit
- Utilities and Support: \$425/unit

4. SOFTWARE AND INTELLECTUAL PROPERTY

1. Software Licensing

- IceNav(TM) Platform License: \$3,500/unit
- Navigation Algorithms: \$1,200/unit
- Fleet Management Software: \$875/unit

2. IP Amortization

- Patent Portfolio: \$750/unit
- R&D Allocation: \$1,225/unit

5. LOGISTICS AND FULFILLMENT

1. Supply Chain Costs

- Component Warehousing: \$375/unit
- Inventory Management: \$425/unit
- Quality Assurance: \$550/unit

2. Delivery and Installation

- Packaging: \$425/unit
- Shipping (Average): \$1,250/unit
- On-Site Installation: \$1,875/unit

6. TOTAL COST ANALYSIS

1. Cost Breakdown

- Total Component Costs: \$24,375/unit
- Total Manufacturing: \$8,750/unit
- Software/IP: \$7,550/unit
- Logistics/Fulfillment: \$4,900/unit

2. Aggregate Costs

- Base Unit Cost: \$45,575/unit
- Standard Margin (32%): \$21,425/unit
- MSRP: \$67,000/unit

7. COST OPTIMIZATION INITIATIVES

1. Current Programs

- Component Sourcing Optimization: projected 8% reduction
- Manufacturing Automation: projected 12% reduction
- Supply Chain Integration: projected 5% reduction

2. Future Initiatives

- Design for Manufacturing Updates (Q3 2024)
- Vendor Consolidation Program (Q4 2024)
- Scale Economics Implementation (Q1 2025)

8. LEGAL DISCLAIMERS

This Cost Structure Analysis contains confidential and proprietary information of Polar Dynamics Robotics, Inc. All costs are current as of the document date and subject to change without notice. Cost allocations are based on standard accounting practices and current production volumes. This analysis may include forward-looking statements regarding cost optimization initiatives and projected savings, which are subject to various risks and uncertainties.

9. CERTIFICATION

The undersigned hereby certifies that this Cost Structure Analysis accurately reflects the current cost basis for the Polar Bot X300 product line based on available financial data and approved accounting methodologies.

POLAR DYNAMICS ROBOTICS, INC.

By: _

Katherine Wells

Chief Financial Officer

Date: January 11, 2024

Reviewed by:

Davidson & Associates, LLP

Independent Cost Accounting Verification

Reference: PDR-CSA-2024-011