### **COLD STORAGE ROBOT UNIT COST ANALYSIS FY2023**

# **COLD STORAGE ROBOT UNIT COST ANALY**

**CONFIDENTIAL AND PROPRIETARY** 

**Polar Dynamics Robotics, Inc.** 

Generated: December 31, 2023

#### 1. EXECUTIVE SUMMARY

This cost analysis document details the unit economics and production associated with Polar Dynamics Robotics, Inc.'s ("Company") BlueCompany autonomous mobile robots for fiscal year 2023. This analysis is preparationally in the control of the co

accordance with GAAP standards and the Company's internal cost ac procedures.
2. SCOPE AND METHODOLOGY
This analysis covers all production variants of the Company's cold     Cost coloulations incorporate:
Cost calculations incorporate:     Direct material costs
- Direct labor costs
- Manufacturing overhead
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R&D allocation

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Quality control expenses

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Warranty reserves

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Regulatory compliance costs

### 3. UNIT COST BREAKDOWN

1. Base Hardware Components

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Reinforced chassis assembly: \$12,450

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BlueCore(TM) processing unit: \$8,750

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Cold-resistant battery system: \$6,890

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Navigation sensors (temperature-hardened): \$4,320

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Motor assemblies (4x): \$5,640

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Control electronics: \$3,980

Total Base Hardware: \$42,030

2. Proprietary Systems

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BlueCore(TM) software license: \$4,500

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Environmental monitoring system: \$2,850

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Thermal management system: \$3,760

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Safety systems: \$2,990

Total Proprietary Systems: \$14,100

3. Assembly and Testing

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Direct labor: \$3,850

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Quality assurance: \$1,920

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Environmental chamber testing: \$2,240

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Certification and compliance: \$1,680

Total Assembly and Testing: \$9,690

### 4. COST VARIANCES AND TRENDS

1. Quarter-over-Quarter Analysis

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Q1 2023 average unit cost: \$67,280

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Q2 2023 average unit cost: \$66,450

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Q3 2023 average unit cost: \$65,820

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Q4 2023 average unit cost: \$65,120

2. Cost Reduction Initiatives

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Component sourcing optimization: -2.8%

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Manufacturing efficiency improvements: -1.9%

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Scale economies in production: -1.4%

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Design optimization: -1.2%

### **5. MARGIN ANALYSIS**

1. Standard Configuration

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Average unit cost: \$65,820

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Target selling price: \$98,500

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Gross margin: 33.2%

2. Custom Configuration

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Average unit cost: \$71,240

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Target selling price: \$112,000

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Gross margin: 36.4%

## **6. FORWARD-LOOKING PROJECTIONS**

1. Expected Cost Reductions

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Component cost optimization: 3-5%

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Manufacturing automation: 2-4%

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Supply chain improvements: 2-3%

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Design refinements: 1-2%

2. Risk Factors

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Semiconductor supply constraints

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Raw material price volatility

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Labor cost increases

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Regulatory compliance requirements

### 7. DISCLAIMERS AND LIMITATIONS

- 1. This analysis contains forward-looking statements and projections
- 2. All costs are denominated in USD and represent averages across p
- 3. This document is confidential and proprietary to Polar Dynamics Ro

#### 8. CERTIFICATION

The undersigned hereby certifies that this cost analysis accurately ref Company's unit economics for FY2023 based on available data and re assumptions.

POLAR DYNAMICS ROBOTICS, INC.

By: \_

Victoria Wells

**Chief Financial Officer** 

Date: December 31, 2023

By: \_

Sarah Nordstrom

**Chief Operating Officer** 

Date: December 31, 2023

## 9. APPENDIX

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