

BREAK-EVEN ANALYSIS BY PRODUCT

CONFIDENTIAL AND PROPRIETARY

Polar Dynamics Robotics, Inc.

Fiscal Year 2023-2024

1. EXECUTIVE SUMMARY

This Break-Even Analysis document presents detailed cost structures and revenue requirements for Polar Dynamics Robotics, Inc.'s ("Company") primary product lines. The analysis is prepared in accordance with GAAP standards and reflects data as of December 31, 2023.

2. PRODUCT LINE DEFINITIONS

1. **PolarBot-X Series**

- Industrial-grade autonomous mobile robots
- Temperature operating range: -40 C to +45 C
- Primary application: Cold storage warehouses
- Model variants: PB-X100, PB-X200, PB-X300

2. **IceNav Navigation System**

- Proprietary software platform
- Annual licensing model
- Includes maintenance and updates
- Enterprise and facility-specific versions

3. **ThermalCore Actuators**

- Patented cold-resistant actuator systems
- Sold as components and replacements
- Compatible with third-party systems
- Three capacity grades available

3. COST STRUCTURE ANALYSIS

1. **Fixed Costs (Annual)**

- Research & Development: \$4,850,000
- Facility Overhead: \$2,750,000
- Administrative Expenses: \$3,200,000
- Marketing & Sales: \$2,100,000
- Insurance & Compliance: \$950,000
- Total Fixed Costs: \$13,850,000

2. ****Variable Costs (Per Unit)****

PolarBot-X Series:

- Raw Materials: \$12,400
- Direct Labor: \$4,800
- Component Assembly: \$3,200
- Quality Control: \$1,600
- Packaging & Shipping: \$2,000
- Total Variable Cost/Unit: \$24,000

IceNav System:

- Software Development: \$240/license
- Server Costs: \$180/license
- Support Services: \$380/license
- Total Variable Cost/License: \$800

ThermalCore Actuators:

- Materials: \$420/unit
- Manufacturing: \$280/unit
- Testing: \$150/unit
- Total Variable Cost/Unit: \$850

4. BREAK-EVEN CALCULATIONS

1. ****PolarBot-X Series****

- Average Selling Price: \$85,000
- Contribution Margin/Unit: \$61,000

- Allocated Fixed Costs: \$8,310,000
- Break-Even Units: 137 units
- Break-Even Revenue: \$11,645,000

2. ****IceNav System****

- License Price: \$4,500/year
- Contribution Margin/License: \$3,700
- Allocated Fixed Costs: \$2,770,000
- Break-Even Licenses: 749 licenses
- Break-Even Revenue: \$3,370,500

3. ****ThermalCore Actuators****

- Average Price: \$2,800
- Contribution Margin/Unit: \$1,950
- Allocated Fixed Costs: \$2,770,000
- Break-Even Units: 1,421 units
- Break-Even Revenue: \$3,978,800

5. SENSITIVITY ANALYSIS

1. ****Price Elasticity Impact****

- 10% price reduction increases required break-even volume by 18%
- 5% cost increase requires 7% additional volume to maintain break-even
- Market elasticity coefficient: -1.4

2. ****Operating Leverage****

- Fixed cost variation of 5% impacts break-even point by 3.8%
- Variable cost efficiency improvements of 10% reduce break-even point by 12%

6. DISCLAIMERS AND LIMITATIONS

1. This analysis contains forward-looking projections and estimates based on current market conditions and operational assumptions.
2. Actual results may vary based on market conditions, component availability, labor costs, and other

factors beyond the Company's control.

3. This document is confidential and proprietary to Polar Dynamics Robotics, Inc. and may not be shared without written authorization.

7. CERTIFICATION

The undersigned hereby certifies that this Break-Even Analysis accurately reflects the Company's cost structure and operational metrics as of the date below.

POLAR DYNAMICS ROBOTICS, INC.

By: _

Katherine Wells

Chief Financial Officer

Date: January 11, 2024

8. REVISION HISTORY

Version 1.0 - Initial Analysis (January 11, 2024)

Prepared by: Financial Planning & Analysis Team

Reviewed by: Corporate Finance Department

Approved by: Executive Committee