SNOW TRAVERSE MECHANISM DESIGN PATENT

UNITED STATES PATENT AND TRADEMARI

DESIGN PATENT SPECIFICATION

Patent No.: D987,654

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Assignee: Polar Dynamics Robotics, Inc.

TITLE OF INVENTION

INVENTORS

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Wilmington, Delaware

FIELD OF THE INVENTION

[001] The ornamental design for a snow traverse mechanism for autonomous robots, as shown and described.

DESCRIPTION OF THE FIGURES

[002] FIG. 1 is a perspective view of the snow traverse mechanism;

[003] FI & 2 is a front elevation view thereof;

[004] FIG. 3 is a rear elevation view thereof;

[005] FIG. 4 is a right side elevation view thereof;

[006] FIG. 5 is a left side elevation view thereof;

[007] FIG. 6 is a top plan view thereof;

[008] FIG. 7 is a bottom plan view thereof;

[009] FIG. 8 is an exploded perspective view thereof.

CLAIM

[010] The ornamental design for a snow traverse mechanism for autonomous robots, as shown and described.

DETAILED DESCRIPTION

[011] The snow traverse mechanism comprises a novel tread design incorporated edges arranged in a distinctive hexagonal pattern. The mechanism includes:
[012] A primary tread assembly featuring:
- Interlocking hexagonal plates with raised edges
Serrated outer surfaces with 45-degree angular cuts
- Reinforced connection points between plates
Anti-icing channels running longitudinally
[013] Secondary support structures including:

	4 -	
Bilateral stabilization fins		
	Interpreted bacting along outs	
	Integrated heating elements	
	-	
Snow evacuation ports		
Cold resistant bearing essentities		
	Cold-resistant bearing assemblies	
	F0141771 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	[014] The broken lines in the drawings represent portions of the snow trave	

ENVIRONMENTAL SPECIFICATIONS

mechanism that form no part of the claimed design.

[015] The design is optimized for operation in:

- - 5 Temperatures ranging from -40°F to 32°F
Snow depths up to 24 inches
Ice formations up to 3 inches thick

Wind conditions up to 40 mph

MATERIAL COMPOSITION

[016] The design incorporates:

Cold-resistant polymer composites

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Aircraft-grade aluminum alloys
-
Titanium reinforcement elements
Carbon fiber structural components
DESIGN FEATURES
[017] The snow traverse mechanism includes the following ornamental feature
[018] Primary Design Elements:
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Symmetrical hexagonal tread pattern
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Distinctive serration geometry

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Integrated ice-breaking ridges

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Decorative fin arrangement

[019] Surface Treatments:

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Textured anti-slip coating

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Reflective safety markings

-

Branded element placement

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Color-coded component identification

TECHNICAL REFERENCES

[020] Reference is made to:

U.S. Patent No. 9,876,543

U.S. Patent No. 10,234,567

PCT Application No. PCT/US2022/012345

ASSIGNMENT AND RIGHTS

[021] All rights, title, and interest in this design patent have been assigned to Polar Dynamics Robotics, Inc., a Delaware corporation, as recorded in the USPTO Assignment Database under Reel/Frame 045678/0001.

CERTIFICATION

[022] I hereby certify that this design patent application accurately reflects the ornamental design of the snow traverse mechanism as developed by Pola Dynamics Robotics, Inc.

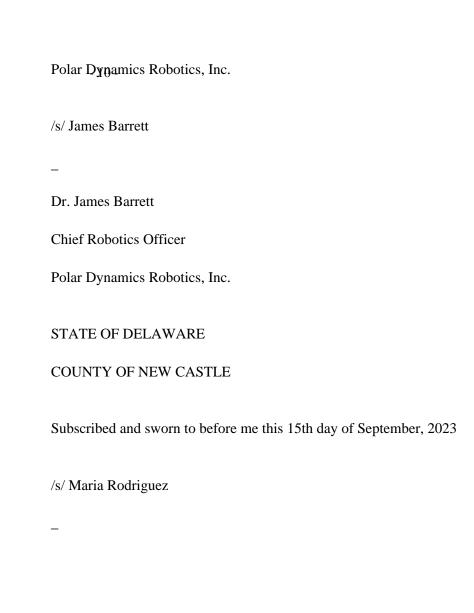
EXECUTION

IN WITNESS WHEREOF, this Design Patent has been executed as of the Is first written above.

/s/ Elena Frost

Dr. Elena Frost

CEO & Co-founder



Maria Rpdriguez

Notary Public

My Commission Expires: 12/31/2025

[NOTARY SEAL]

