

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:

NEW ASSIGNMENT

NATURE OF CONVEYANCE:

SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
Discovery Technology International LLLP	03/31/2009

RECEIVING PARTY DATA

Name:	Andrew Mitchell
Street Address:	33 Chancery Lane
City:	London
State/Country:	UNITED KINGDOM

PROPERTY NUMBERS Total: 11

Property Type	Number
Application Number:	61052835
Application Number:	11406335
Application Number:	61138442
Application Number:	61138665
Application Number:	61139439
Application Number:	61150703
Application Number:	61149941
Application Number:	61178587
Application Number:	61178323
Patent Number:	7395607
Patent Number:	7405508

CORRESPONDENCE DATA

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CH \$440.00 61052835

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PATENT
REEL: 023044 FRAME: 0473

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ATTORNEY DOCKET NUMBER:	065285-1
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NAME OF SUBMITTER:	Carrie L. Rieder
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Total Attachments: 3 source=Mitchell#page1.tif source=Mitchell#page2.tif source=Mitchell#page3.tif

PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this "Agreement") is made on this 31st day of March, 2009 between Discovery Technology International LLLP, a Florida limited liability limited partnership ("Debtor"), and Andrew Mitchell ("Secured Party").

1. SECURITY INTEREST. Debtor hereby grants to Secured Parties (as defined below) a security interest in all rights, title, and interest in all patents, patent applications and like protections now owned by Debtor and listed on Schedule I attached hereto, including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same and the proceeds therefrom ("Collateral"). The security interest granted hereunder shall secure the payment and performance of Debtor's obligations under the senior secured promissory notes (the "Notes") issued to the Secured Parties pursuant to that certain Note Purchase Agreement dated on or about the date hereof (the "Note Issuance"), including but not limited to the Note issued to the Secured Party in the principal amount of ONE HUNDRED SEVENTY-FIVE THOUSAND DOLLARS (\$175,000.00), and the full, prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of all other liabilities and obligations of Debtor to the Secured Parties due or to become due or hereafter arising under this Agreement or in connection with the Note Issuance.

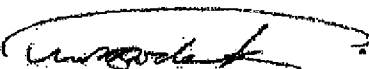
For the purpose of this Agreement, "Secured Parties" shall mean collectively the Secured Party and any other holder of Notes pursuant to the Note Issuance (as defined in the in the Notes) who has executed a security agreement containing substantially the same terms and conditions as stated herein.

2. COVENANTS. Debtor hereby warrants and covenants that during the course of this Agreement : (a) The Debtor's place of business is 6578 Palmer Park Circle, Sarasota, Florida 34238, and Debtor will notify Secured Party in writing of any change in or discontinuance of Debtor's place of business within five (5) business days of such occurrence; (b) Debtor will not sell, dispose, or otherwise transfer the Collateral or any interest therein, other than pursuant to the terms of the Notes or as part of a transaction conducted in the ordinary course of business or by license grants made by Debtor in the ordinary course of business, without the prior written consent of Secured Parties; (c) Debtor shall, from time to time, execute and file such other instruments, and take such further actions as the Secured Parties may reasonably request to perfect or continue the perfection of Secured Parties' interest in the Collateral; and (d) to Debtor's knowledge, this Agreement creates in favor of Secured Parties a valid first priority security interest in the Collateral in the United States securing the payment and performance of the obligations evidenced by the Notes.

The Secured Party shall, at the Debtor's sole expense, file this Agreement with the U.S. Patent and Trademark Office no later than ninety (90) days after completion of the Note Issuance.

3. **EVENT OF DEFAULT.** Any Event of Default pursuant to the Notes shall be deemed an event of default under this Agreement (each, an "Event of Default"). The Notes shall govern with respect to the procedures upon an Event of Default. If an Event of Default is not cured within the prescribed time periods as provided in the Notes, the Secured Parties may at any time thereafter declare the Notes in default and all obligations secured hereby immediately due and payable and shall have the remedies of a Secured Party under the Uniform Commercial Code. Secured Parties may require the Debtor to make the Collateral provided hereunder available to the Secured Parties at a place which is mutually convenient. No waiver by Secured Parties of any Event of Default shall operate as a waiver of any other Event of Default or of the same Event of Default on a future occasion. This Agreement shall inure to the benefit of and bind the heirs, executors, administrators, successors, and assigns of the parties. This Agreement shall have the effect of an instrument under seal.

Discovery Technology International, I.L.L.P

By 
 Name: M. P. Broderick
 Title: PRESIDENT

Date: _____

Secured Party: Andrew MITCHELL

By 

Date: 3/1/09

SCHEDULE I

to

PATENT SECURITY AGREEMENT

Patent No.	Patent Title	Inventor(s)	Applicant	Filed	Granted	Abstract	Priority	Status
7,393,607 B1	ROTATIONAL AND TRANSLATIONAL MICROPOSITION APPARATUS AND METHOD	M. P. Broderick, S. F. Patenko, A. Repashov, V. Zhelezakov	US Patent (7/42/2008)	U.S. Patent (7/42/2008)	The invention relates to a rotational and translational micropositioner with six degrees of freedom for manipulation of objects with submicron linear and arc-second angular resolution based on piezoelectric ultrasonic motor with pushers.	Commercialized product Trademark: RoboMaze	NA	YES
61052,835	DTI PIEZOELECTRIC MOTOR DISCLOSEDURE	S. F. Patenko	Prov. Pat. (6/20/2008)	Pat. Pen.	The invention relates to piezoelectric ultrasonic miniature rotary motors with a new design, facilitating mass production of small size (less than 10 mm OD) rotary bi-directional PZT motors.	Designed/Prototype in production	Ref: 21457/020957-JUSO	YES
7,405,508 B2	MEMORANDUM FOR MICROMANIPULATOR	S. F. Patenko	US Patent (7/29/2008)	U.S. Patent (7/29/2008)	The invention relates to a reversible (bi-directional) piezoelectric ultrasonic motor based on pushers and micromanipulator based on it.	Commercialized product Trademark: NANO Nanomanipulator	NA	Licensed exclusively to DTI
11406,335	PIEZOELECTRIC VALVE	S. F. Patenko	Heffron, Pat. (9/19/2008)	Pat. Pen.	The invention relates to a flow control under shut OFF/ON motorized ball valve for non-corrosive fluids based on ultrasonic PZT motor with pushers driving ball response and shut opening/closing times.	Designed/Prototype completed	NA	Licensed exclusively to DTI
61136,442	PIEZOELECTRIC MOTOR WITH HIGH TORQUE	S. F. Patenko, V. Zhelezakov	Prov. Pat. (12/17/2008)	Pat. Pen.	The invention relates to a piezoelectric ultrasonic rotary motor based on pushers with new design and method of control, which allows bigger diameter PZT motors to be built and substantially higher torques to be achieved.	Designed/Prototype completed	Deputy Ref: 21457/0210879 IDARBY- WORKSITE FID1237255	YES
61136,666	ULTRASONIC PIEZOELECTRIC QUASIRESONANCE LINEAR MICRO MOTOR BASED ON ACOUSTIC STRAINING WAVES WITH COMBINED RESONANCE	S. F. Patenko, V. Zhelezakov	Prov. Pat. (12/19/2008)	Pat. Pen.	The invention relates to a miniature ultrasonic piezoelectric linear motor, which is reversible, based on new design and method of control, which allows substantially higher push/pull force per unit of mass of the motor (3 - 4 N for a motor with mass of 10 g) and higher linear speed (up to 1 m/s) to be achieved. This application also includes an invention for an integrated air micropump device.	Designed/Prototype completed	Deputy Ref: 21457/0210879 IDARBY- WORKSITE FID1237273	YES
61139,439	PIEZOELECTRIC MOTOR	S. F. Patenko, V. Zhelezakov	Prov. Pat. (12/19/2008)	Pat. Pen.	The invention relates to a miniature ultrasonic piezoelectric rotary motor, based on new design with reversible motion, based on a new control principle. The design allows manufacturing of miniature rotary PZT motors and actuators in the x mm range. The application also includes an invention for an integrated air micropump device.	Designed/Prototype Pending	Deputy Ref: 21457/0210988- USO IDARBY- WORKSITE FID240375	YES
PCT (21/02/2009)	PIEZOELECTRIC GENERATOR OF MECHANICAL VIBRATIONS, OF PIEZOELECTRIC MOTOR (and variants) BASED ON THE GENERATOR	Semy Patenko, Vyacheslav Lantrenko, Vital Koral	US Nonpro. Patent Applied For	Pat. Pen.	The invention is a substantial improvement of the original bi-directional piezoelectric rotary motor providing high Q factor of the piezoresonator and increased manufacturability.	Designed/Prototype completed	Deputy Ref: 0210866-USO IDARBY- WORKSITE FID1242799	YES
61150,703	VALVES BASED ON REVERSIBLE PIEZOELECTRIC ROTARY MOTOR	S. F. Patenko, V. Zhelezakov	Prov. Pat. (2/6/2009)	Pat. Pen.	The invention relates to a flow control under shut OFF/ON motorized ball & pinch valves for corrosive or non-corrosive fluids based on ultrasonic piezoelectric rotary motor based on new design, which allows faster flow control response and small opening/closing times - 100-250 ms (6.4-4.5 mm aperture).	Designed/Prototype completed (under test)	Deputy Ref: 21457/0211374- USO IDARBY- WORKSITE FID259319	YES
61149,941	PIEZOELECTRIC CORROSION-RESISTANT MICRO PUMP	S. F. Patenko, V. Zhelezakov	Prov. Pat. (2/4/2009)	Pat. Pen.	The invention relates to a piezoelectric micropump based on rotary piezomotor. To pump is mounted within the interior of a corrugated tube. The micropump, which can provide more than 200 ml/min output at 2 psi differential pressure, is an alternative to the miniature pumps with the advantage of practically no leakage and ultra-low power consumption.	Designed	Deputy Ref: 21457/0211412- USO IDARBY- WORKSITE FID182780	YES
61178,567	ELIMINATION OF FRICTION IN MULTI AXES SUPPORT SYSTEM BY USING PIEZOELECTRIC ULTRASONIC SUSPENSION IN GAS	S. F. Patenko, V. Zhelezakov	Prov. Pat. (5/15/2009)	Pat. Pen.	The invention relates to a multiaxes support which uses piezoelectric resonator to induce frictionless drive between a saddle and a turnon.	Prototype of concept device completed	Deputy Ref: 21457/0211412- USO IDARBY- WORKSITE FID182780	In process
61178,322	ROTARY ULTRASONIC MICRO MOTORS WITH INCREASED PERFORMANCE	S. F. Patenko, V. Zhelezakov	Prov. Pat. (5/14/2009)	Pat. Pen.	The invention relates to piezoelectric ultrasonic miniature rotary motors with a new design, including mass production of small size (less than 10 mm OD) rotary bi-directional PZT motors.	Designed/Prototype in production	Deputy Ref: 21457/0211244- USO	In process
In preparation	VARIANTS OF NON-MAGNETIC ROTARY PIEZOELECTRIC MOTOR	S. F. Patenko, V. Zhelezakov	(Prov. Pat.)	In preparation	The invention relates to new design variants of non-magnetic rotary piezoelectric motor	Designed	NA	NA

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RECORDED: 08/04/2009

REEL: 023044 FRAME: 0477