Highest precision x- y planar motion nanopositioner

most accurate x- y motion for for positioning professionals

Dual parallel pairs of levers planar nanopositioner

Annual Sales Forecast for USA *				Innovation Status		Idea
Sales & Marketing Support Level	Conservative 80% odds of selling	Most Likely 50% odds of selling	Aggressive 20% odds of selling	Development Status	Proprietary Protection Status	Concept Score
Ultra Low	$0	$360	$2,000	2 of 5 Successful Prototypes	5 of 5 Granted Patent Claims	30 29 is Average
Low Support	$4,700	$10,000	$18,000			
Medium Support	$43,000	$68,000	$100,000			
High Support	$120,000	$190,000	$280,000	Remaining Time & Cost to First Sale		
Ultra High	$220,000	$350,000	$520,000	1-2 yrs	$100k-$1M	

Highest precision x- y planar motion nanopositioner - *most accurate x- y motion for for positioning professionals*

Final Decision Maker: *Manufacturers of high precision motion and metrology equipment*

Nanopositioner that can be built to any scale that can deliver x- y linear motion from a fraction of a nanometer to 500 microns with an angular deviation of less than a tenth of what is currently available in the market. The new design developed by National Institute of Standards and Technology researchers makes use of a dual parallel pairs of levers to generate perfectly straight line motions. This design has negligible wobble and crosstalk error thus eliminating the need for corrective motion action.

Remarkable benefits of this novel design include the use of embedded safety steps (door stops) which prevent the destruction of the deformable kinematic mechanism if it is accidentally overloaded. A displacement sensor can embedded into the device along the axis of the actuator, thus eliminating Abbe sine displacement measurement error. Zero backlash and stiction are uniquely available due to the patented **monolithic** design.

Many dozens of these devices have been built and tested in the NIST Laboratories along with various types of controllers. Their size range from the macroscale (300mm x 300mm) to MEMS- scale (1mm x 1mm). Materials used include aluminum, titanium, Invar®, steel, brass to single crystal silicon for the MEMS devices. Capacitance displacement sensors have been embedded into the macro- and meso- scale devices, interferometers into the MEMS microscale devices.

Computer Assisted Designs (CAD) drawings exist for all the above mentioned devices and would be available to licensee(s). Likewise, lithography mask designs for the MEMS devices are also available. A fully equipped laboratory is available to assist with the testing of the devices.

$10-1,000 for MEMS to meso and macroscale

Seeking: *Purchase, Investment, Manufacturing/ R&D*

Email Inventor(s) | Link to Website With More Info | Link to YouTube Video | Inventor(s) Open to Consulting Requests | Agree to use Fair Contract | Invention can be exported

* Consumption sales forecast. Does not include "Random" events or □Inventory Fill□. Forecast is for Year 1 for Large or Year 2 for Small Companies. Forecast should be read as ...□With Low marketing support there is an 80% odds of achieving sales of at least...

Report Assumptions and Inventor(s) Commentary

Inventor(s) Assumptions	"Most Likely" Estimate	Confidence	Inventor(s) Commentary Data Source or Basis for Assumptions
# of Possible Final Decision Makers	12,000	20%	computer, electronic, optical, pharma semiconductor equimpment manufacturers
Revenue per First Purchase	$700.00	30%	these estimates are for the meso- and macroscale device. The MEMS device would fetch $10 most likely.
% that will Repeat	N/ A	N/ A	
Number of Annual Repeats	N/ A	N/ A	
Revenue per Repeat Purchase	N/ A	N/ A	
Reseller (Trade) Margin	N.A.	N.A.	
Producer Profit (EBITD)	20%	20%	based on industry stats

Innovation Status			
Development Status	2 of 5 Successful Prototypes		NIST has developed several prototypes of different sizes and tested them all and compared them against commercial products
Cost to First Sale (remaining)	$100k-$1M	30%	All CAD and blueprint drawings will be made available to licensee along with consultations with inventor. The initial costs should be about 3 full time engineers plus materials.
Time to First Sale (remaining)	1-2 yrs	30%	the prototypes have been built and tested - all that remains is scale up.
Confidence in Concept Claims made in description		60%	Devices of all relevant sizes and materials have been built and tested at the NIST Labs.
Proprietary Protection Status	5 of 5 Granted Patent Claims		all steps have been taken to complete the prototype, licensee would have access to CAD and blueprint drawings and lithography mask drawings for the MEMS device

Concept Score & Diagnostics

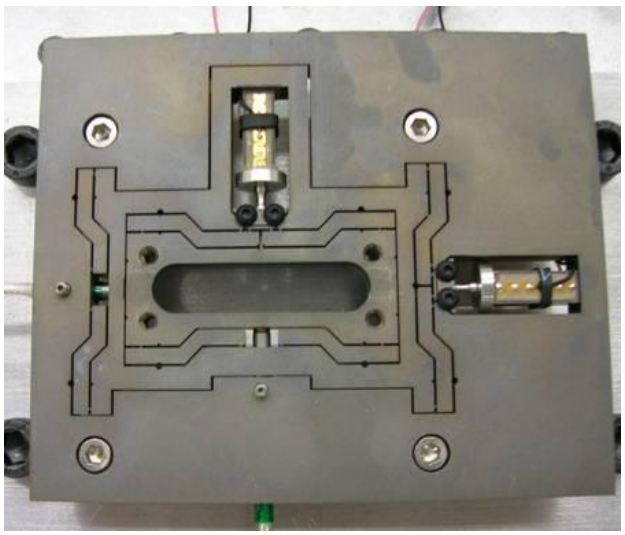
Merwyn Concept Score
With Confidence Bands

Pessimistic 80% odds of at Least	Most Likely 50% odds of at Least	Optimistic 20% odds of at Least
21%	30%	42%

Concept Diagnostics	Red	Yellow	Green
Percentile Group	Bottom 40%	Middle 40%	Top 20%
Overt Benefit			
Reason to Believe			
Dramatic Difference			

Inventor Commentary & Alternative Development Scenarios

Inventor(s) Sales Goals			
Minimum Goal	N/ A	**Current GOAL**	**N/ A**



Planar Ti (90 mm by 70 mm by 5 mm) Dual Parallel Pair Levers XY Axes Micro/ Nano Positioner with embedded overload protection

Inventor(s) Commentary:

CURRENT SALES FORECAST

Sales & Marketing Support Level	Conservative **80%** odds of selling	Most Likely **50%** odds of selling	Aggressive **20%** odds of selling
Ultra Low	$0	$360	$2,000
Low Support	$4,700	$10,000	$18,000
Medium Support	$43,000	$68,000	$100,000
High Support	$120,000	$190,000	$280,000
Ultra High	$220,000	$350,000	$520,000

If MARKETING CONCEPT Improved

(Increase Concept Score by +20 Points)

Sales & Marketing Support Level	Conservative **80%** odds of selling	Most Likely **50%** odds of selling	Aggressive **20%** odds of selling
Ultra Low	$0	$620	$3,400
Low Support	$8,600	$17,000	$30,000
Medium Support	$78,000	$120,000	$170,000
High Support	$220,000	$320,000	$450,000
Ultra High	$420,000	$600,000	$830,000

If MARKETING CONCEPT and PRODUCT/ SERVICE Improved

(Increase Concept +20 Points, Repeat Rate & Number of repeats by 30% and Revenue per purchase 20%)

Sales & Marketing Support Level	Conservative **80%** odds of selling	Most Likely **50%** odds of selling	Aggressive **20%** odds of selling
Ultra Low	$0	$620	$3,400
Low Support	$8,600	$17,000	$30,000
Medium Support	$78,000	$120,000	$170,000
High Support	$220,000	$320,000	$450,000
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Additional Details

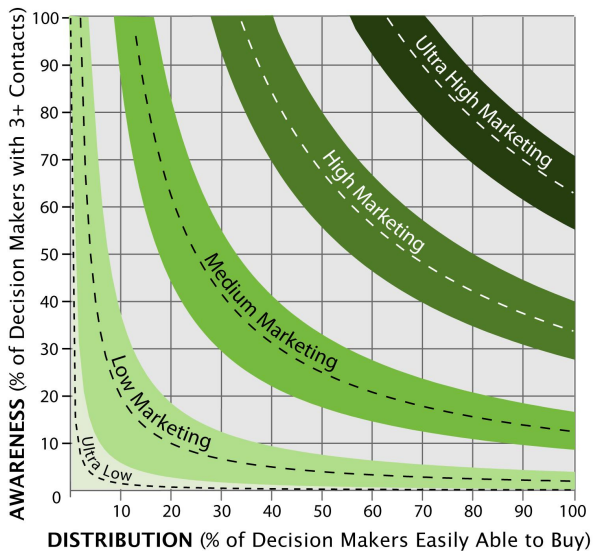
Fair Market Royalty (%)			
	Conservative - 80% Odds Royalty Percentage	**Most Likely - 50% Odds** Royalty Percentage	**Aggressive - 20% Odds** Royalty Percentage
At CURRENT State & Status	**2.5%**	**3.3%**	**4%**

Sales & Marketing Support Level	Annual Inventor Royalty Revenue			3 Year Value to Inventor If 50% Odds
	80% Odds	50% Odds	20% Odds	
Ultra Low Support	**$10**	**$25**	**$46**	**$75**
Low Support	**$170**	**$330**	**$520**	**$980**
Medium Support	**$1,300**	**$2,100**	**$3,000**	**$6,200**
High Support	**$3,600**	**$5,800**	**$8,200**	**$17,000**
Ultra High Support	**$6,600**	**$11,000**	**$15,000**	**$32,000**

Sales & Marketing Support Level Assumptions

Sales & Marketing Support Level	Sample Numbers		% Aware x % Distribution (Aware & Able)	Inventor Estimate of Odds
	% Distribution	% Awareness		
Ultra Low Support (Word of Mouth)	**5%**	**3%**	0.2%	**N/ A**
Low Support (Small Company)	**20%**	**10%**	2%	**N/ A**
Medium Support (Medium Sized Company)	**50%**	**25%**	13%	**N/ A**
High Support (Large Company)	**75%**	**45%**	34%	**N/ A**
Ultra High Support (Mega or Niche)	**90%**	**70%**	63%	**N/ A**

Graph of EQUIVALENT (Awareness x Distribution) Combinations



NAICS Industry Codes For This Invention
54171 - Research and Development in the Physical, Engineering, and Life Sciences
33441 - Semiconductor and Other Electronic Component Manufacturing
33429 - Other Communications Equipment Manufacturing
32541 - Pharmaceutical and Medicine Manufacturing

Patent Numbers that apply to this Product/ Service
6,467,761

Inventor(s) PEDIGREE	
Years EXPERIENCE in related industry	**20**
GRANTED Patents	**7**
Licensing Deals SIGNED	**5**
Innovations that have SHIPPED	**2**

For USA Patents: Utility Patent = 7 digit number, Design Patent starts with D, Planet Patent starts with PP. Provisional Application "61/ xxx,xxx", Non provisional application "12/ xxx,xxx", Design patent application "29/ xxx,xxx"

CAUTION: *This Merwyn Business Simulation Research Report includes no warranty or guarantee. Results and opinions should be considered rough and directional in nature. This is because the report is based upon inventor- supplied data and simplified modeling methods. If you are looking to invest, distribute, purchase or become involved with this innovation, in any way, we strongly urge you to validate the inventor data and sales forecasts BEFORE committing yourself or your resources. Merwyn Research, Inc. shall not be responsible for any liability or damages arising out of the failure to perform such investigation and validation. Changes in the concept description, product, pricing, or input assumptions will almost certainly change results.*

Additional Forecasts for Other Countries

Annual Sales - Probability Forecast - for Canada			
Sales & Marketing Support Level	**Conservative 80%** odds of selling	**Most Likely 50%** odds of selling	**Aggressive 20%** odds of selling
Ultra Low	**$0**	**$40**	**$230**
Low Support	**$520**	**$1,100**	**$2,000**
Medium Support	**$4,700**	**$7,500**	**$11,000**
High Support	**$13,000**	**$21,000**	**$31,000**
Ultra High	**$25,000**	**$39,000**	**$57,000**

Assumptions: exchange rate of $1.00 US = $1.01083 CAN; population of 33,390,141

Annual Sales - Probability Forecast - for United Kingdom			
Sales & Marketing Support Level	**Conservative 80%** odds of selling	**Most Likely 50%** odds of selling	**Aggressive 20%** odds of selling
Ultra Low	**£0**	**£36**	**£210**
Low Support	**£470**	**£1,000**	**£1,900**
Medium Support	**£4,300**	**£6,800**	**£10,000**
High Support	**£12,000**	**£19,000**	**£28,000**
Ultra High	**£23,000**	**£35,000**	**£52,000**

Assumptions: exchange rate of $1.00 US = £0.50458 UK; population of 60,776,238