

「The New textile testing equipment」

Wear-Scope (38.Naniwa's)



1.Executive summary

There is no mechanism to determine whether a company's products are really good for the environment, such as greenwashing or SDGs-washing. Therefore, we have developed a machine that allows people to know for themselves when they buy a product whether or not it is SDGs-washing.

2.Current situation

In recent years, as awareness of environmental considerations and the SDGs has increased around the world, more and more companies have started to contribute to SDGs with their business. In the apparel industry, for example, sustainable fashion is attracting attention. Against this backdrop, technology to recycle polyester fiber into recycled polyester is gaining popularity due to the large amount of polyester, one of the essential materials used in the fashion industry, that has a high environmental impact. Also, there are many apparel businesses that make clothes from recycled materials. On the other hand, an increasing number of businesses that appear to be committed to the SDGs but are not, and consumers who buy products without knowing that it is false information, have emerged as a problem, and this has become a hot topic as SDG-washing.

3. Mission

Focusing on the apparel industry, we will introduce innovative technologies that enable consumers to accurately grasp the reality of companies that promote the recycling of materials, especially for products that claim to be made from recycled polyester, based on reliable information. Our mission is to help build a society in which consumers can make ethical consumption choices based on facts. The concept of the products we developed and market is to promote trustworthy decisions based on a scientific system. By recommending this product, we enable consumers to select reliable products.

4.Product/Service Description

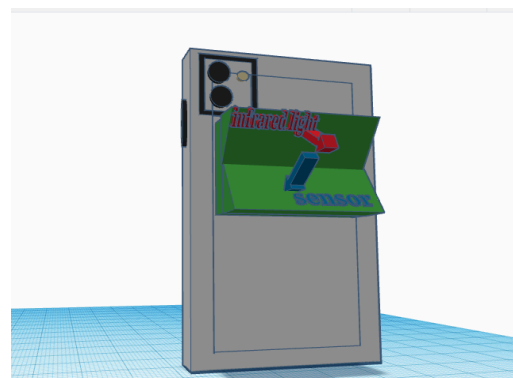
"Wear-Scope" can be attached to the back of a smartphone. The WearScope comes with a password to install a dedicated application and a product to attach the unit.

The upper part of the main unit is a near infrared miniature spectrometer, and the lower part is a near-infrared spectroscopic sensor. The "Wear-Scope" measures the material of clothes by irradiating near-infrared light on the garment, and analyzes what percentage of the garment is recycled polyester by measuring the amount of isophthalic acid.

The use of the "Wear-Scope" is as follows.

- (1) The user attaches the main unit to the back of the smartphone when using the "Wear-Scope".
- (2) The user presses a button on the side of the device to irradiate near-infrared rays onto the target garment.
- (3) Data on the waveform of the reflected light is analyzed by a near-infrared spectroscopic sensor
- (4) The data is transmitted via Bluetooth to an application installed on the connected smartphone.
- (5) Analyzed data is shared with other users in a format similar to social media.

By making the main unit chevron shape as shown in the figure, the reflection of the near-infrared and near-infrared spectroscopic sensors can be contained in a compact device.



5. Appeal Point

What makes our "WearScope" innovative and exciting for consumers is that it allows them to check the content with their own hands, using a machine composed of scientific and technical systems. This provides consumers with reliable information in terms of objective primary information that can be scrutinized.

Furthermore, the ability to share reviews in conjunction with the application will accumulate data and increase the credibility of the "Wear-Scope" itself. In addition, the ability to gather a large number of consumer feedback on SDG-washing findings will increase the accuracy of the findings. This can also contribute to improving the accuracy of a company's product advertising.

6.Target Customer/Marketing

We are targeting the customers, who have the "wear-scope" and dedicated application, and the product is intended to be used by the individual.

The main point of our company's business strategy is that the app that comes with the "Wear-Scope" allows the results of recycled polyester content to be shared on existing social media such as Instagram and X. The data shared in the app and the ratings from other users can be expected to be transmitted and claimed in other social media apps when SDG-washing is found there. As a result, along with improved accuracy in the promotion of company products, "Wear-Scope" is expected to be promoted. In this way, we aim to increase the number of "Wear-Scope" users and make it one of the new ways to make consumption choices and be accepted by society.

7.Financials

The unit price is set at 20,000 yen. Sales volume is expected to reach 50,000 units in the first year, with an annual growth rate of 130%, through the application's social networking function and spread via other social networking services. Therefore, sales of the "Wear-Scope" will generate a profit of 1,000,000,000 yen in the first year, 1,690,000,000 yen in the third year, and 2,856,100,000 yen in the fifth year. From this amount, subtracting manufacturing, personal expenses, and equipment costs, the expected profit is -16,572,000 yen in the first year, 142,448,000 yen in the third year, and 326,619,800 yen in the fifth year. The first year will

JPN¥			1year	3year	5year
	unit price		20000	20000	20000
	sales figure		50000	84500	142805
	benefits		1,000,000,000	1,690,000,000	2,856,100,000
Manufacturing cost	wear scope				
(based on sales volume)		1 : sensor	325,000,000	549,250,000	9,282,325,000
		2 : near-infrared	350,000,000	591,500,000	999,635,000
		3 : bluetooth	67,000,000	113,230,000	191,358,700
		4 : others	100,000,000	169,000,000	285,610,000
		wear scope sub total	842,000,000	1,422,980,000	2,404,836,200
	Application development costs		2,000,000		
personnel expenses					
	system engineer		14,400,000	-	-
	programmer		21,600,000	-	-
	designer		12,000,000	-	-
	manufacturer		34,500,000	34,500,000	34,500,000
	researcher		39,600,000	39,600,000	39,600,000
	others		50,000,000	50,000,000	50,000,000
cost of equipment	energy bill		400,000	400,000	400,000
	Plant expenses (rent)		72,000	72,000	72,000
profit/loss before tax			-16,572,000	142,448,000	326,691,800
	income tax		0%	0%	0%
	net profit		-16,572,000	142,448,000	326,691,800
capital stock	funding required		10,000,000	0	0
	loan required		6,572,000	0	0
	repayment of loan		0	0	0
cash balance			0	142,448,000	326,691,800

be in the red, but this is not a problem since the number of sales is expected to increase due to the application and other benefits. It is estimated that the cash balance will increase by approximately 860% from the first to the third year. Furthermore, in the fifth year, the profit will amount to 326,619,800 yen.

8.Conclusion

"Wear-Scope" is an innovative machine and application that allows consumers to check the environmental friendliness of products with their own hands, enabling them to make informed choices. By promoting this system, products can be viewed from an environmental perspective, and consumers can voluntarily contribute to the SDGs.

9.References

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