THE ROLE & IMPACT OF INDUSTRIAL DESIGN FOR NEW INNOVATIONS (INTERACTION FOR DESIGN)

Eng. Khaled A. Hamid Elnems

The Egyptian Society for Women & Youth Inventor R&D Industrial Design Innovation (Q.C.), Abu Dhabi, UAE *Corresponding author Alnems78@Hotmail, Yahoo & Gmail.com

Keywords

Abstract

The role of Design for New Invented Technology, Sense of Design.

Design and role for developing the project and role of design in changing marketing thinking

The role of casing and packaging in completing the design element and completing functional tasks with beautifying analyzing formally, substantively and content-wise

Design fit with the data of the idea

Upgrade and Update for the design and modern technology to keep pace with market requirements and general taste.

Sure without creativity you can't did a perfect Design and without Design you can't did a perfect Innovation, the Sense of design along with creativity creates a great innovation

Creativity in the field of industrial design is an absolute thing, because that's what makes high-value design work. As we know that in terms of creativity, there are three things: ideas, communication, and aesthetics. These three things is a form of a perfect and complete creativity in design communications concept.

The role of creativity is vital, especially for innovations designers, whom most people consider creative simply by virtue of their work. While creativity is subject to multiple definitions, it must work in tandem with other concepts before it can be taken advantage of. Broad Creativity, Creative by Originality, Creativity and Critical Thinking and Creativity and Artistic Skill

And Last thing must be you believe for your Innovation Design work: We do not deal with the design as a mere cover for innovation, but is the basis for accepting the invention marketing

1. Introduction

he idea is not just about the total options or what the benefits will do but many creativity roles of Innovation design is subject to multiple roles, it must work in tandem with other concepts before it can be taken advantage of. It is important for anyone who has an idea or invention and intends to display it or produce it

- 1. The creative sense of innovation and quality control (integration in industrial design)
 - Integration Design: Integrate and harmonize options with design for innovation.
 - Sense of Design: Above all, consider design sense.
- 2. Formal integration and harmony with the surrounding environment
- 3. Taking into consideration the planned category of use of the idea or innovation in terms of (Age Sex Financial situation Environment)
- Consistency: (quality control) between the tools of innovation / idea (colors and their overlap logo, name of innovation) the consistency of all parts and pieces in terms of form, composition and WHAT IT IS
- 5. Design fit with the data of the idea.
- 6. Fairing: Whether through additions to internal or external materials or parts that allow or simplify the ease of dealing with innovation
- 7. Upgrade and Update for the design and modern technology to keep pace with market requirements and general taste.
- 8. Field survey to determine the marketability of the design.
- 9. Design and role for developing the project and role of design in changing marketing thinking
- 10. The role of casing and packaging in completing the design element and completing functional tasks with beautifying analyzing formally, substantively and content-wise

In the following models of new innovation, we will explain how each element of the above influences the design role of the invention and gives life to it, from just a new machine to an attractive element that meets the requirements and leads to marketability.

2. New Innovation Title and Registration (Spider Cover):

Title: "Automatically Car Cover device by remote (Spider Cover)", (Registered Patent No.: No.:2011/ 079 (Jebel Ali Free Zone (Ministry of Economy))) on 2011.

Inventor: Khaled Abdul Hmaid Elnems

2.1 Description: General idea of what the invention is about:

- It is car cover to covering of the car by automatic cover, only put these device on the roof of the car and the device will automatically extend the cover in a circular motion to be covered a car in full after that starts working of the electromagnetic network (very thin) which is inside full this cover to magnetize with entire body of the car.
- To remove this cover would be through remote control from a distance and during orientation of vehicle, the device cutting off work of the network of electromagnetic and then going to (collecting) the cover (in a circular motion to reverse direction of the extend) after that only the user of this device when arrival of him vehicle, he lift the device from the surface of the car to put it in a car bag, the base of this device is a magnet so that fixes on the roof of car by magnetize

Benefits: save time, effort and maintain the cleanliness for car Energy: derive its energy by solar cells on the entire surface device Security: it is plan to the provide it by alarm option to not stolen Sizes: This device features that size cover it is (one size) because be adhere on the car body & formed it.



Figure 1 Device Structure

2.2. The creative sense of innovation and quality control (integration in industrial design) (Fig.2)

The creative sense of innovation and quality control (integration in industrial design)

- Integration Design: Integrate and harmonize options with design for innovation
- Sense of Design: Above all, consider design sense



2.3. Fairing: Whether through additions to internal or external materials or parts that allow or simplify the ease of dealing with innovation (Fig.3):

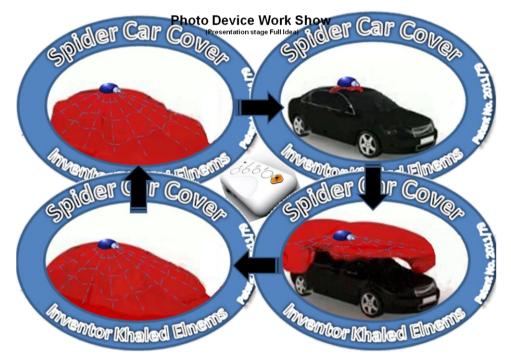


Fig. 3: Comparison (stage 1)

2.4. Consistency: (quality control) between the tools of innovation / idea (colors and their overlap - logo, name of innovation) - the consistency of all parts and pieces in terms of form, composition and WHAT IT IS (Fig.4):



Fig.4: Logo

2.5. Upgrade and Update for the design and modern technology to keep pace with market requirements and general taste (Fig.2):

Challenges of Market requirements (supply and demand) here it will be Control to loss of creativity design, on 2013 Produced (stage 1) it was focus was at this stage on the idea of the basic device, which ((spread) cover as circular) inside the device to facilitate the placement in the car bag and control through the remote and also the work of the device with solar Has been dispensed with the magnetization option cover (electromagnetic network).



Fig. 5: Comparison (stage 2)

2.6. Design and role for developing the project and role of design in changing marketing thinking: the 3rd Stage (MINI Spider Car Cover) (Fig.3):



Fig. 6: Comparison (stage 3)

This is the 3rd Stage of device development since 2011 and it is "Automatically Car Cover (Changeable plastic (LLDPE) film) device by Mobile Bluetooth (MINI Spider Cover)",

Description: It is a Car Cover (<u>Changeable plastic (LLDPE) film</u>) to cover the car automatically. Just put this device on the roof of the car and it will automatically extend the cover in a circular motion until the car is covered in full. After that it will magnetize with the entire body of the car (<u>by small liquid magnetics</u>). To remove this cover would be through mobile Bluetooth control from a distance and during orientation of the vehicle, the device is going to collect the cover (in a circular motion in the reverse direction of the extend). After that when the user of this device arrives at this vehicle, he lifts the device from the surface of the car to put it in a car bag or under the seat. The base of this device is a magnet so that it affixes to the roof of the car by magnetism.

2.7. Field survey to determine the marketability of the design as This Invention Device Proved Worth by Won a lot of Awards (To prove the Social Acceptability of the Proposal):

Was won more than 12 Nos. medals (8 Gold, 2 Silver & 2 Bronze) with more than 14 Nos. of International Innovation Certificates with International Innovation Diploma & World International Innovation Cup from (Taiwan, Korea, Belgrade, Russia, Malaysia, Zagreb, Kuwait, Turky & Morocco).

Supported Awards for "(MINI Spider Cover)":

- Gold Medal with certificate in The 16th INTERNATIONAL SALON OF INVENTIONS AND NEW TECHNOLOGIES «NEW TIME» Sevastopol, Russian Federation 2020
- Gold Medal with certificate in the USA (Innovation Week America IWA 2023), edition of the Innovation Week America IWA 2020. FEED organization. Morocco
- Silver Medal with certificate in the 1i1w International Invention Innovation & Startup Competition 2024, Turky

Supported Awards for "Automatically Car Cover (Spider Cover)":

- The international innovation Cup In The SEOUL INTERNATIONAL INVENTION FAIR (SIIF) Korea 2011 with The Outstanding International Diploma (Diploma No.FKI-111129) from (The Federation of Korean Industries)
- Gold Medal from the SEOUL INTERNATIONAL INVENTION FAIR (SIIF) Korea 2011
- Gold Medal from the International Cyber Genius Inventor Fair (CIGIF2011) on Aug. 2011
- Silver Medal with certificate in The 8th INTERNATIONAL SALON OF INVENTIONS AND NEW TECHNOLOGIES «NEW TIME» Sevastopol, Russian Federation 2012
- Bronze Medal from the 3rd International Engineering Invention & Innovation Exhibition Malaysia (i-ENVEX 2012)
- Silver Medal from the MACAU Communication & International Innovation & Invention Expo 2012
- Bronze Medal from the International Exhibition of Innovations, New Technologies & Design "INVENTIONS <u>BELGRADE</u> 2012."
- Silver Medal from the Taipei International Invention Show & Technomart (INST 2012) Taiwan
- Gold Medal from the INTERNATIONALS EXHAIBITION OF INVENTIONS, SHOW "INOVA 2012." Under (WIIPA) ZAGREB
- The 4th Fair Innovation and Inventions Exhibition 2012 in Iran on Feb. 2012
- The 4th International Inventions Exhibition **<u>IIFME</u>** (Kuwait City) 2011

Supported Video for " (MINI Spider Cover)",: <u>https://www.youtube.com/watch?v=qo1_IXLbFCw</u> Supported Video "Automatically Car Cover (Spider Cover)":<u>https://www.youtube.com/watch?v=VhU3_D6PBuM</u> Supported Tech Briefs magazine launched the Create the Future Design contest: <u>https://contest.techbriefs.com/2021/entries/automotive-transportation/11082</u>

3. New Innovation Title and Registration (Sun Printer by Mobile):

Title: "Sun Printer by Mobile", (Registered Patent No.: 2015.1006. 25) on 2015.

Inventor: Khaled Abdul Hmaid Elnems

3.1 Description: General idea of what the invention is about:

An eco-friendly printer. Designed like an art piece, the printer consumes clean energy from the Sun, through a magnifying glass, focusing its energy onto soft wood to draw letters or any other form with a circular stencil moved by a motor, which also uses energy via a solar panel. "This was inspired by the desire to use a basic principle of nature in creating an art piece "Sizes: This device features that size cover it is (one size) because be adhere on the car body & formed it.



Figure 7: Device Structure

3.2. The creative sense of innovation and quality control (integration in industrial design) (Fig.8)

The creative sense of innovation and quality control (integration in industrial design)

Influenced by the desire to use a basic principle of nature to create permanent works of art, The Sun Printer by Mobile is a straightforward tool which draws with the sun. by a magnifying glass, it focuses the sun's energy onto soft wood to drawing a letters or different Forms through Drawing Circular Stencils moving by motor also taken energy from Sun (by solar panel)

Technology: We developing this project to improvement and integrate a basic principle of nature like (Sun) free energy and technologies. Without direct human intervention which uses the Sustainability integrate with technology tools and communication technologies that allow of more control, increase protectively, accurate result and quality of life, being environmentally friendly (Green Tec. Sustainability Art).



Fig. 8: Comparison

3.3. Fairing: Whether through additions to internal or external materials or parts that allow or simplify the ease of dealing with innovation (Fig.8):

The Advantages:

- To make (The Sun Printer by Mobile) easy to use. By following order from a Mobil the process will be even faster and easier, and starts working almost instantly. Stylized product that is fun for all ages and skill levels. By using the included Drawing Circular Stencils,
- Printer by free resources only the (Sun) for Type and Energy
- Just put this device under the Sun and contacted with your Mobile with Chosen the letters or another different Forms send it and wait a minutes after that you can received your soft wood Art by sun engraver onto it (your letters Name or favorite different Forms)

3.4. Consistency: (quality control) between the tools of innovation / idea (colors and their overlap - logo, name of innovation) - the consistency of all parts and pieces in terms of form, composition and WHAT IT IS (Fig.9):



Fig.9: Logo

3.5. Upgrade and Update for the design and modern technology to keep pace with market requirements and general taste and Design role for developing the project and role of design in changing marketing thinking (Fig.10):

Bangkok post News: an eco-friendly printer from an Egyptian inventor **Khaled Elnems**. Designed like an art piece, the printer consumes clean energy from the Sun, through a magnifying glass, focusing its energy onto soft wood to draw letters or any other form with a circular stencil moved by a motor, which also uses energy via a solar panel.

"This was inspired by the desire to use a basic principle of nature in creating an art piece," said Elnems <u>http://www.bangkokpost.com/tech/local-news/1194873/all-the-new-toys</u>

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Bangkok Post

Also on display was an eco-friendly printer from an Egyptian inventor **Khaled Elnems**. Designed like an art piece, the printer consumes clean energy from the Sun, through a magnifying glass, focusing its energy onto soft wood to draw letter or any other form with a circular stencil moved by a motor, which also uses energy via a solar panel. "This was inspired by the desire to use a basic principle of nature in creating an art piece," said Elnems

Fig. 10: Comparison

3.6. Field survey to determine the marketability of the design as This Invention Art Device Proved its Worth by Won a lot of Awards (To prove the Social Acceptability of the Proposal): from ((Romania, <u>Russia</u>, Korea, Croatia, Italy, Indonesia, <u>Thailand</u>, Turkey, <u>Poland</u>, <u>Czech</u> and Canada)

4. New Innovation Title and Registration ((OHFORA) Recycle Paper To 3D):

Title: "(OHFORA) Recycle Paper To 3D", (Copyright No.: VAu 1-240407169) on 2019.

Inventor: Khaled Abdul Hmaid Elnems

4.1 Description: General idea of what the invention is about:

It is a sustainable initiative to reach as much as possible for the followers of the initiative to help stimulate creativity and artistic sense for all, develop the concept of sustainability and reformulate materials to replace the environmental risk caused by the accumulation of used papers and the difficulty and cost of recycling

Through the readiness of the proposed device, which is a small desktop device for recycling paper into 3D models that works with USB

An innovative way to reuse, recycle and recycle scraps of paper into handmade paper products with 3D molds.

Benefit: <u>https://www.youtube.com/watch?v=oCqUjBOhSN8</u> or <u>https://www.youtube.com/watch?v=ezQ6qBF_dlk</u> Sustainability and benefit from wasted paper in innovative technical ways

Saving the wasted cost in the stages of paper recycling (transportation and assembly - deinking - cleaning) because the treatment process will take place at the same time of consumption

Inspiration: When it was planned to implement the project, it was to implement a 3D printer that works with used papers, but we were satisfied with this device, which extracts circles of multiple sizes or paper dough that is easy to form, and this was for two goals: (to be a low-cost and therefore available device) and (helps to stimulate creativity and artistic sense)

Knowing that (in the first (introductory) stage) what the device produces can be implemented, but manually and without the intervention of the device as an aid to reach the same results so that it is available to everyone.....



Figure 11: Device Structure

4.2. The creative sense of innovation and quality control (integration in industrial design) (Fig.12)

The creative sense of innovation and quality control (integration in industrial design)

The project distinguished from similar projects - as it is creativity and innovation as We develop this project to improvement and integrate a basic recycle paper scraps and technologies. Without direct human intervention which uses the Sustainability integrate with technology tools and communication technologies that allow of more control, increase protectively, accurate result and quality of life, being environmentally friendly (Green Tec. Sustainability Art).

Save The cost of waste recycled the paper in the recycling stages (Transport & Collection, DE-Inks, and cleaning) because the processing will take place at the same time of the consumption

The desired project benefit for customers by give them a small desktop device for recycling paper to the 3D Shape (Works with USB) it will be available in all House and Works and Helping to stimulate creative and artistic sense

Technology: The expected or actual revenues from the project it will be high as the project not expense and All public it will be available in all House and Works =70 %

There is an initial plan to start with the essence of the project and its implementation and to reach the creative youth who are designed by providing the necessary and basic support for them on how to take care of creativity, methods of implementation, creation of models and the method of visual and paper presentation and presentation and display of the final work

There is future plan to involve the community in the initiative through the application to collect the wasted paper and its locations and also to establish a factory of models without carbon or the cost of energy or water from the sea directly by recycling paper and creating creativity and free art.

And if we look at the clear difference in the cost of production through the 3D printer, which is 35 times more than the cost of printing or the use of stereoscopic design by stereoscopic wastepaper as shown in the example



Fig. 12: Comparison

4.3. Fairing: Whether through additions to internal or external materials or parts that allow or simplify the ease of dealing with innovation (Fig.12):

The initial plan: to start with the nature of the project and its implementation, and to reach the creative youth who are designed by providing them with necessary and basic sustainable intellectual support on how to produce paper models, interest in creativity, methods of implementation, and the creation and presentation of artistic models in sustainable museum

The future plan: to involve the community in the initiative through an application to collect wastepaper and its locations, as well to establish a model factory without carbon or the cost of energy or water directly from the sea by recycling paper, creating creativity and free art

The future vision is the extent to which the project (OHFORA) can be used as an initiative and platform (for sustainability by students and state schools) to achieve sustainable innovative goals

First: Creating a sustainable museum (recycling paper) to display fossils by recycling paper

Second: To encourage students, the student's name will be engraved on each circle or fossil made through it Whether it is by participating in collecting used paper or recycling it so that its name will be fixed on the model when it is displayed in the sustainable museum

Third: The initiative will start by simplifying and liking the student in the concept of sustainability and reformulating the materials so as to replace the environmental danger caused by the accumulation of used papers and the difficulty and cost of recycling them after throwing them in the trash To something that can be benefited from and be tangible and also motivate students, as it will be a useful element for the environment and a participant in building models through which a (sustainable museum) will be established bearing his name and his work

Fourth: It will help stimulate the creative, artistic and research sense of the student not only in creating models but in research and construction in science Geological subspecies as paleontology

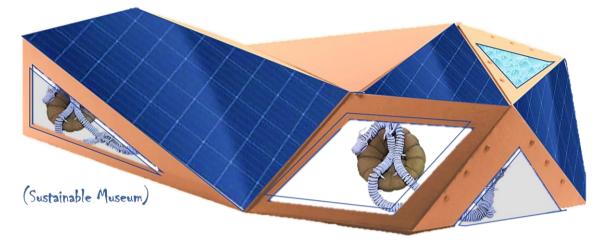


Fig. 13: sustainable museum

4.4. Consistency: (quality control) between the tools of innovation / idea (colors and their overlap - logo, name of innovation) - the consistency of all parts and pieces in terms of form, composition and WHAT IT IS (Fig.14):



Fig.14: Logo

4.5. Upgrade and Update for the design and modern technology to keep pace with market requirements and general taste (Fig.15):

Development OHFORA: Green Invention: Preserve the future of sustainable solutions.

As will add with this device (OHFORA Project) to Solving the Color problems by (Colored liquid pressure-Mechanical system) and can change totally Basic colors by Recycle the used Cartridges Color Printer ink (usually the printer showed empty ink, but it was remaining more than 25% Color in ink) by this New Application Added (Colored liquid pressure into OHFORA device to colored the 3D models) by New sustainability way.



Fig. 15: Comparison

4.6. Field survey to determine the marketability of the design as This Invention Art Device Proved its Worth by Proved the Social Acceptability of this Proposal by taken International Awards and International Innovation Certificates from a lot of International Innovations Exhibitions Win 3 Nos. of International Innovation Medals with 7 Nos. of International Innovation Certificates, from (Japan, Russia, Taiwan and U.A.E.)

- The Top LEXUS DESIGN AWARD 2021 SHORTLIST 【(OHFORA)Recycle Paper To 3D】 2021
- Gold Medal with certificate in The 15th INTERNATIONAL SALON OF INVENTIONS AND NEW TECHNOLOGIES «NEW TIME» Sevastopol, Russian Federation 2019
- Participation Successful Innovation Certificate from The Abu Dhabi Technology development Committee (UAE) in the conference (INNOVATOR 2019)
- Award Certificate with Gold Medal with The Outstanding International Diploma from (Taiwan External Trade Development Council (TAITRA)) <u>Taiwan Innotech Expo invention</u> 2020
- Award Certificate with Silver Medal in Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition (IPITEX 2023) in Thailand Inventors' Day 2023 under National Research Council of Thailand (NRCT)
- Special Award with Diploma from Malaysia Technology Expo in Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition (IPITEX 2023) Thailand Inventors' Day

Video link: https://www.youtube.com/watch?v=oCqUjBOhSN8 or

https://www.youtube.com/watch?v=ezQ6qBF_dlk

Site: https://contest.techbriefs.com/2020/entries/consumer-product-design/10676 https://redesigneverything.whatdesigncando.com/projects/ohfora-recycle-paper-to-3d https://nowaste.whatdesigncando.com/projects/ohfora-recycle-paper-to-3d/ https://www.zealous.co/khaledelnems/project/-OHFORA--RECYCLE-PAPER-TO-3D/ News: (Gulf-Today News) https://www.pressreader.com/bahrain/gulf-today/20190209/281633896490003

Award: https://ipitex.nrct.go.th/index.php/international/project_detail/0507000497

5. New Innovation Title and Registration (Sun Printer by Mobile):

Title: "E-Safety Glasses" Safety Electronic Protection Glasses, (Registered Patent No.: 2015/801) on 2015.

Inventor: Khaled Abdul Hmaid Elnems

4.1 Description: General idea of what the invention is about:

It is a Safety Electronic Protection Glasses (eyes protection) only when worn it in the face will be order another device wirelessly to Operating the (Dangerous Cutter & Drillings devices) like (cutter and trimmer trees devices or a welder or holder devices) to protect the worker



Figure 16 Device Structure

4.2. The creative sense of innovation and quality control (integration in industrial design) (Fig.17)

The Advantages : only by worn this Safety electronic protection glasses can protection the eyes from (dangerous consequences) like (cutter and trimmer trees device or welder or holder device) to protect the worker otherwise this Dangerous Device it will not working

Technology

It was invented interested in safety and protection when using devices a cuter and dangerous It is a Safety electronic protection glasses worn in the face for protection the eyes, is connected wirelessly with another device for **2Nos. Of options:**

- 1. For (cutter & H dangerous devices) (powered by Electrical) it will be fixed and locked in Electrical socket
- 2. For (cutter & drillings dangerous devices) (powered by battery) it will be fixed and locked in Power Button of dangerous devices like (cutter and trimmer trees device fixed and locked in (power button as a (shutter)) of the device you want to protect the worker from its

This process meant that it cannot working by this sharp and dangerous device drivers only when you wear this Safety electronic protection glasses Since there are sensors give them orders Wireless (only when worn) to the (other device): it is a device with the small gate covers the operate button or **Electrical socket (and locked it)** and does not open until wear glasses to be able to Users for use of button Operating for use the device machine to be protected him from damages

Problem Solved in this Product:

Most of incidents that affect the eyes when you use Device be acute or dangerous because of the negligence and lack of wear protective glasses in the workplace and while using these devices

Targeted Users:

The worker users a (dangerous consequences) like (cut and trimmed trees device or a welding device or a hole device) & The Students in Labs



Fig. 17: Comparison

4.3. Fairing: Whether through additions to internal or external materials or parts that allow or simplify the ease of dealing with innovation (Fig.18):

New in the invention

Here the differences between Normal Safety glasses and this New Glasses product (E- Safety Glasses) by supplied feature with electronic specs to enables the owners of workshops and organizations of maintenance and factories Users of such devices dangerous or acute to preservation and safety of their workers Eyes (compulsory) because they under the Responsibility in security and safety matters and not, as is applicable where these workshops or factories or institutions provide protective eyewear, but workers in the neglect to wear them do not care about it **Exploitation method:**

And here it is clear the field of application of this invention (glasses protective) Electronic these specs supplied feature electronic (to distinguish them from glasses protective normal) to enable the owners of workshops and organizations of maintenance and factory users of such devices dangerous or acute to preservation and safety of their workers Eyes (compulsory) because they fall below the Responsibility in safety and Security Affairs and not as applicable as these workshops or factories or institutions provide protective eyewear, but workers in the neglect to wear them do not care about it

Here, it is clear that by this invention will increase the degree of security and safety and security will be electronically controlled process which will lead to increase the security of quality and safety of individuals



Fig. 18: Comparison

4.4. Consistency: (quality control) between the tools of innovation / idea (colors and their overlap - logo, name of innovation) - the consistency of all parts and pieces in terms of form, composition and WHAT IT IS (Fig.19):



4.5. The role of casing and packaging in completing the design element and completing functional tasks with beautifying analyzing formally, substantively and content-wise (Fig.20):



Fig.20: Packaging & Poster

4.6. Upgrade and Update for the design and modern technology to keep pace with market requirements and general taste (Fig.21):

Go To Market

To identify the position, they would have our new Technology for Electronically Control of Safety Works for (Cutter and trimmer trees devices or a welder or Drillings devices) on the market, that No production of similar or counterpart's product in the market or no competitors for the project's products in Market

Using the evaluation of the strategy of flexibility on this new Technology (E-Safety Glasses), we are the pioneers for all countries in the development of this technology, there is little likelihood that a competitor and get us out of the market, and our vision is to continue developing and researching that improve this Safety Technology.

The following points variables were analyzed for the production, percentage costs of the different packages that we will distribute the new language are developing. (Into account time, effort, expenses, additional technologies required)

The Way of Cooperation and Development for our Product?

looking to built-in this device inside all (Brands) Products for dangerous consequences devices and it will be with each one's of own Safety Electronic Protection Glasses

The mechanism of supporting innovations and organizations involved by Safety companies work with factories, workshop and contractor companies to Selling this product or coordinate with the companies Producer for dangerous consequences devices (e.g. Goodyear BOSCH, STANLEY, DEWALT, BLACK+DECKER, Craftsman, CribMaster, Irwin, Lenox, Lista, Mac Tools, Porter-Cable, FACOM, BOSTITCH, Vidmar, Sonitrol and Aero scout)



Fig. 21: Comparison

4.7. Field survey to determine the marketability of the design as This Invention Art Device Proved its Worth by Won a lot of Awards (To prove the Social Acceptability of the Proposal): The Device was won a lot of International Awards More than 18 Nos. of Special Awards:

Win 10 Nos. of International Innovation Medals (5 Gold, 4 Silver & 1 Bronze) With 18 Nos. of International Innovation Certificates, the Legion of Honor, and Special Award, from: (China, Russia, UAE, Korea, Poland, Indonesia, Philippine BELGRADE, CZECH, ROMANIA, India, Turkey, Taiwan, Canada and Thailand)

- The Top entries Evaluation of GIDA 2021!! Project Entry ID: (2021-05-3135373 E- Safety Glasses), 521 good designs stand out from over 6000 entries. From Goldreed Industrial Design Award Xiongan Future Industrial Design Institute (China).
- 2. Gold Medal from The Association "Russian House for International Scientific and Technological Cooperation" in (SIIF) Korea 2015.
- 3. Win Silver Medals in SEOUL INTERNATIONAL INVENTION FAIR (SIIF) Korea 2015.
- 4. Win Gold Medal with certificate in The 11th INTERNATIONAL SALON OF INVENTIONS AND NEW TECHNOLOGIES «NEW TIME» Sevastopol, Russian Federation 2015
- 5. Participation Successful Certificate from The Abu Dhabi Technology development Committee (UAE) in the conference (INNOVATOR 2016)
- Win Gold Medal with certificate in The Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition (IPITEX 2016) in Thailand Inventors' Day 2016 under National Research Council of Thailand – NRCT
- 7. Special Award with Diploma from Indonesian Invention and Innovation Promotion Association No. INNOPA/BKK/SA/142/11/2016 (INNOPA) in (IPITEX 2016) Thailand
- 8. Special Award Diploma from The Manila Young Inventors Association (MYIA) in (IPITEX 2016) Thailand
- 9. Diploma and Golden Medal from (<u>E U R O I N V E N T</u>) in the EUROPEAN EXHIBITION OF CREATIVITY AND INNOVATION– ROMANIA on 2016
- 10. Gold Medal from (<u>Invent Arena</u>) International exhibition of technical innovations, patents and inventions, CZECH 2016
- 11. Outstanding Diplomas in International Invention Innovation Competition in Canada, iCAN 2016 ORGANIZED BY Toronto International Society of Innovation and Advanced Skills (TISIAS)
- 12. DIPLOMA from KATOWICE INTARG International Exhibition of Economic and Scientific Innovation (Poland) 2016
- 13. Silver Medal in the XIX Moscow International Salon of Inventions and Innovation Technologies "Archimedes- 2016" Russia
- 14. Bronze Medal with face Nikola Tesla along with Diploma in INTERNATIONAL EXHIBITION OF INVENTIONS, NEW TECHNOLOGIES AND DESIGN INVENTIONS BELGRADE 2016 from (Belgrade Association of Inventors)
- 15. The Outstanding International Diploma in First India International Innovation Fair (IIIF 2016) from (Qatar Innovation Association)
- 16. Special Awards Indonesian Innovation and Invention Promotion Association (INNOPA) in BIXPO 2016 Bitgaram International Exposition of Electric Power Technology International Invention Fair in Gwangju, Korea (No. INNOPA/TH/SA/338/11/2017 (INNOPA))
- 17. Silver Medal with Diploma in 2nd Istanbul International Inventions Fair -ISIF'17 UNDER THE HONORARY PATRONAGE of Republic of Turkey Ministry of Science, Industry and Technology (ABDER Organization), Turkey 2017
- 18. Silver Medal from the TAIPEI Int'l invention show & Technomart 2017
- 19. Special Awards from <u>National Research Council of Thailand</u> (NRCT) in from the TAIPEI Int'l invention show & Technomart 2017

Supported Web Site: E- Safety Glasses : <u>https://e-safetyglasses.wixsite.com/khaled-elnems</u>

Supported Video for explanation the Project: <u>E- Safety Glasses</u> : <u>https://www.youtube.com/watch?v=VdSqNE6yrfg</u> http://iwis.polskiewynalazki.pl/2016/m/inv_2009158.html

https://inventarena.webnode.cz/products/a6017-safety-electronic-protection-glasses/

http://www.euroinvent.org/cat/e2016.pdf

http://www.istanbul-inventions.org/en/30675/ISIF17-AWARD-LIST

https://www.inventaipei.com.tw/en_US/m/search/info.html?id=3739B3FBC0B9DFF73786B23D5A373198&type=2B39564D5AFAED44 http://docplayer.net/59222958-Ican-2016-official-catalogue-event-directory-international-invention-innovation-competition-in-canadaican-2016-page-0.html

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6. New Innovation Title and Registration (Octopus Wash Car):

Title: "Octopus Wash Car", (Registered Patent No.: 2017.1000. 25) on 2017.

Inventor: Khaled Abdul Hmaid Elnems

6.1 Description: General idea of what the invention is about:

It is Wash Car by Movement Automatically Magnetic Arms Stick and Movement for Full body of Car by round motion With 3 Option (Soap, Water & Dry) There are Two kinds for (Octopus Wash Car):

- 1. Automatic Octopus: Just put a device above Car and it work self Automatically by Stick and Movement for Full body of Car by round motion Magnetizes Arms (High Cost)
- 2. **Manual Octopus**: Just put a device above Car along with contacted water hose and it work Automatically by Stick and Manual Movement for Full body of Car by round motion Magnetizes Arms (**Low Cost**)



Figure 22: Device Structure

6.2. The creative sense of innovation and quality control (integration in industrial design) (Fig.23)

The creative sense of innovation and quality control (integration in industrial design)

We developing this project to improvement and integrate principle The shape and movement of the octopus and the exploitation of its multiple arms and the idea of its adhesion to lead the project idea

Video Link : <u>https://www.youtube.com/watch?v=lk25naWTY2M</u>



Fig. 23: Comparison

6.3. Fairing: Whether through additions to internal or external materials or parts that allow or simplify the ease of dealing with innovation and Design role for developing the project and role of design in changing marketing thinking (Fig.24):

The shape and movement of the octopus and the exploitation of its multiple arms and the idea of its adhesion to lead the project idea

The Advantages: Save (Time, Effort & Money)



Fig. 24: Comparison

6.4. Consistency: (quality control) between the tools of innovation / idea (colors and their overlap - logo, name of innovation) - the consistency of all parts and pieces in terms of form, composition and WHAT IT IS (Fig.25):



Fig.25: Logo

6.5. Upgrade and Update for the design and modern technology to keep pace with market requirements and general taste (Fig.8):

Field survey to determine the marketability of the design as Proved the Social Acceptability of this Proposal by taken International Awards from a lot of International Innovations Exhibitions:
•Award Certificate with Silver Medal with certificate in The 10th INTERNATIONAL SALON OF INVENTIONS AND NEW TECHNOLOGIES «NEW TIME» Sevastopol, Russian Federation 2017
•Award Certificate with Gold Medal with The Outstanding International Diploma from (Taiwan External Trade Development Council (TAITRA)) Taiwan Innotech Expo invention 2018

7. New Innovation Title and Registration (Water Life Gun):

Title: "Water Life Gun" Pistol Cleanser and Desalt for (Rivers and Sea), (Registered Patent No.: 2016/ 910) on 2016.

Inventor: Ms. Hayet Boussaha

Industrial Design Innovation: Eng. Khaled Abdul Hmaid Elnems

7.1 Description: General idea of what the invention is about:

It is a hand-held device disinfectant and desalt for water of the (Rivers / Valleys) for the explorers and (Sea) for sailors – (Device Features):

- A small size, which can passengers carry and enjoy the benefits of it
- A Negotiable to recharge through Electrical or Solar panels so that it works without electricity to be sustainable and easier for the user to use it at any time or place
- Able to know the pH and Conductivity without reference laboratories for analysis
- The most important features for this device it will be as (Small Plant) for filtering and desalination at the same time because of (Ion Exchange Resins) specified for water valleys and rivers that containing layer of active charcoal and layer of sand
- Ion Exchange Resins contain of (The Resins) or layer of (Polymer chemistry) to desalination by ion exchange
- Features of (Ion Exchange Resins) that are recycled and re-used again by the Central centrifugation



Figure 26: Device Structure

7.2. The creative sense of innovation and quality control (integration in industrial design) (Fig.27)

Device Elements with Roles:

- 1. Fence: for prevent big waste to entering (stone or paper)
- 2. Ion Exchange Resins : As explained above in Device features (The amount of coal, sand and The Resins used are placed through the analysis completed)
- 3. Thermal Plate: for cleanse the water from bacteria
- 4. Agitator or Mixer to Make sure Full Water to touch each drop with Thermal Plate
- 5. Filtration or filter paper: to be sure not pass any contaminated
- 6. pH Meter: to measure the pH
- 7. Conductivity Meter: to measure the conductivity meter
- 8. Small Tank: To store water cleanser
- 9. Chargeable Battery: To operate the device in places there is no electricity (Recharge through Electrical or Solar panel)
- 10. Solar Panels
- 11. Exit: for Potable Water
- 12. Input: for Waste Water
- 13. Key & Pump: To water pumping and control the amount of water to be used



Fig. 27: Comparison

7.3. Fairing: Whether through additions to internal or external materials or parts that allow or simplify the ease of dealing with innovation (Fig.28):



Fig. 28: Comparison

7.4. Consistency: (quality control) between the tools of innovation / idea (colors and their overlap - logo, name of innovation) - the consistency of all parts and pieces in terms of form, composition and WHAT IT IS (Fig.29):



Fig.29: Logo

7.5. Upgrade and Update for the design and modern technology to keep pace with market requirements and general taste (Fig.30):



Fig. 30: Comparison

7.6. Field survey to determine the marketability of the design as This Invention Art Device Proved its Worth by Won a lot of Awards (To prove the Social Acceptability of the Proposal)

8. THE TOOLS OF INDUSTRIAL DESIGN FOR NEW INNOVATIONS:

8.1. Digital Creativity: Using digital tools and technologies to explore creative ideas and new ways of displaying your ideas, research, or work.

Digital creativity is about using digital tools and technologies to explore creative ideas and new ways of displaying your ideas, research, or work. ... Videos and examples of Digital Creativity work created in our sessions and beyond.

Archives		Coding
0		00
Data visualisation	Digital Creativity	Video editing

Fig. 31: Comparison

8.2. Design and role for developing the project and role of design in changing marketing thinking

8.3. The role of Casing in completing the design element and completing functional tasks with beautifying it formally, substantively and contentively.

8.4. The role of Packing in completing the design element and accepting the product

8.5. The relationship between the product name and product design, such as (Spider Cover - Octopus Wash Car)

8.6. The relationship between the product name and product production (OHFORA) RECYCLE PAPER TO 3D)

9. THE CRITERIA ESSENTIAL TO DESIGN EXCELLENCE:

9.1. Criteria believe are essential when evaluating design excellence

Sure, without creativity you can't did a perfect Design and without Design you can't did a perfect Innovation, the Sense of design along with creativity creates a great innovation.

Creativity in the field of industrial design is an absolute thing because that's what makes high-value design work. As we know that in terms of creativity, there are three things: ideas, communication, and aesthetics. These three things are a form of a perfect and complete creativity in design communications concept.

The role of creativity is vital, especially for innovations designers, whom most people consider creative simply by virtue of their work. While creativity is subject to multiple definitions, it must work in tandem with other concepts before it can be taken advantage of. Broad Creativity, Creative by Originality, Creativity and Critical Thinking and Creativity and Artistic Skill

And Last thing must be you believe for your Innovation Design work: We do not deal with the design as a mere cover for innovation but is the basis for accepting the invention marketing.

9.2. How stay updated on the latest design trends and innovations

Attend Design Conferences / Workshops and Participated in International Innovations Exhibitions

Subscripted for a lot of Design agencies, and publications (update Visual) to informed about the latest design trends and innovations. and Follow Thought Leaders on Social Media platforms design projects from different industries or disciplines.

Join Design Communities and Discussion Groups and Read Industry-Specific Blogs and Publications

Experiment with New Design Tools and Techniques along with Take Courses and Workshops (Online or on site)

Collaborate with Other Designers and Keep a Close Eye on the Competition

Participating in design competitions, the goal is to develop a sense of creativity.

9.3. As my experience in Industrial Design Category / Product and a Jury on Committee in International Engineering Invention & Innovation Exhibitions Work will share some insights into judging process for the evaluate and assess the submitted entries to determine the winners?

The idea is not just about the total options or what the benefits will do but many creativity roles of Innovation design is subject to multiple roles, it must work in tandem with other concepts before it can be taken advantage of. It is important for anyone who has an idea or invention and intends to display it or produce it. With The creative sense of innovation and quality control (integration in industrial design)

9.4. The evaluation of design projects from different industries or disciplines to effectively communicate design concepts and stand out from the competition

The role of Design for New Invented Technology, Sense of Design. (do not deal with the design as a mere cover for innovation, but is the basis for accepting the invention marketing and without Design you can't did a perfect Innovation)

Models of new innovation, element of the influences the design role of the invention and gives life to it, from just a new machine to an attractive element that meets the requirements and leads to marketability.

Using digital tools and technologies to explore creative ideas and new ways of displaying your ideas, research, or work. (Digital creativity)

The relation between my innovation & Design: (Industrial Product, Sustainability Art, developed projects Improve Quality of New Idea Design & Industrial Product by Integrating design arts with innovations

Follow the roles and General instructions for platforms design projects from different industries or disciplines through Examples of Judging Comments Per Numerical Score

Following models of innovation, and how each element of the influences the design role of the invention and design

8. SUMMARIES

IN one sentence: (We do not deal with the design as a mere cover for innovation, but is the basis for accepting the invention marketing and without Design you can't did a perfect Innovation)

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