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UNIVERSITI
TEKNOLOGI
MARA



PROCEEDINGS OF JOHOR INTERNATIONAL INNOVATION INVENTION COMPETITION AND SYMPOSIUM 2024 (JIIICaS 2024)



*"Flourish and Nurturing Sustainable
Innovation for a Prosperous Nation"*

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Preface

In the name of Allah, the Almighty who gives us the enlightenment, the truth, the knowledge and with regards to Prophet Muhammad (peace be upon him) for guiding us to the straight path. We thank to Allah for giving us guidance and strength to write this e-book.

This e-book compiles the extended abstracts that submitted to Johor International Innovation Invention Competition and Symposium 2024 (JIIICaS2024), where JIIICaS2024 is a virtual platform for all creative minds to share and present their invention and innovation. Each abstract gives a brief background on the innovation or project.

We hope that this e-book will help the readers to get to know the innovation done by the students and get some ideas to develop future innovation products.

Foreword Rector



Assalamualaikum warahmatullahi Wabarakatuh,
Salam Sejahtera, Salam Malaysia MADANI and
Salam UiTM Dihatiku.

In the name of Allah, the Most Gracious, the Most
Merciful.

It is a great honor to welcome you to the Johor
International Innovation, Invention, Competition, and
Symposium 2024 (JIIICaS 2024). This event

connects various disciplines, focusing on education and engaging educators,
students, researchers, and innovators from all walks of life.

Innovation is not just about ideas; it demands perseverance, creativity, and
determination to turn those ideas into reality. The remarkable projects
showcased today highlight the dedication and spirit of all participants.
Initiatives like this not only explore new technologies but also cultivate skills
and leadership among our youth. At Universiti Teknologi MARA (UiTM) Johor
Branch, we are fully committed to fostering a dynamic culture of innovation,
promoting the commercialization of new products, and encouraging
meaningful collaborations with industry and society.

As we celebrate this event, I would like to extend my heartfelt gratitude to all
sponsors, judges, the College of Computing, Informatics and Mathematics,
UiTM Pasir Gudang Campus as the event organizer, as well as to the
researchers and participants for their hard work in making this event a
success. Let us continue striving for innovation and excellence. May the
ideas presented today inspire us and lay the groundwork for future
achievements.

Thank you.

Associate Professor Dr. Saunah Zainon
Rector
Universiti Teknologi MARA (UiTM)
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(A-SS008) BEAUWATER

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ABSTRACT

BEAUWATER is a mini water dispenser that has been transformed into an electronic product that can instantly provide both hot and cold water in different environments. The purpose of this electronic device is to cater to the needs of modern lives that demand quick and easy hydration options. Because it can be recharged and works with batteries, it can continue to function even when there is no electricity. This makes it suitable for a wide range of uses, from everyday home use to outdoor activities like camping. This article gives a brief history of BEAUWATER and highlights its features, emphasizing how it can make a variety of user demographics' lives easier, including parents looking to care for their newborns at night, students who struggle with a shortage of water dispensers, and anyone looking for space-saving solutions. BEAUWATER combines engineering, design, and functionality to deliver a dependable and efficient water dispensing experience. This encourages the intake of water and ecological durability. This book places a strong emphasis on BEAUWATER as a workable answer to the problems associated with getting hot and cold water in today's fast-paced, modern culture.

Keywords: Mini water dispenser, Electronic device, Rechargeable, Innovation

1.0 INTRODUCTION

Today, most people want everything quickly and easily. Not to mention if it can reduce the daily burden. Due to that, through this project, a product has been specially designed to overcome the daily problem, introducing BEAUWATER. BEAUWATER is an electrical product that was inspired by a water dispenser. A product such as this will come in handy given the current weather. Meanwhile, summer has arrived in Malaysia, which means that most people will naturally be looking for ways to cool off. Cold water is a common choice. Besides, moms out there can use it. This is due to the fact that women no longer need to use a thermos to hold hot water for making milk for their kids. Considering that this product can be recharged and also uses batteries, then this product is suitable for use in various situations such as camping. Furthermore, the

product has an advantage because it is travel-sized. Saving space and light-weight constitutes a few of them.

2.0 OBJECTIVE

Therefore, the objective for this project is to make life easier for people like students and newborn parents for example the students will always have a problem with the water dispenser that were provided by the University to the collage because there are many students who want to drink the water but the machine will always run out of water so with this innovation the students can enjoy the cold and hot water without problem. As for the parents, it will make life easier when the parents need to wake up in the middle of the night to prepare the milk for the newborn baby. The next one is, to save space, as the common water dispenser is big and it will take a lot of space too. The size of the BEAUWATER is small and can be kept in a small space like the table near the bed or the study table as it will leave a lot of space so that the user can use the space to put other things. Other than that, it is to provide another alternative for people so that they can have hot and cold water easily as the product can be kept inside the room or anywhere that seems fit, as long as there is electric power to keep the BEAUWATER function properly. And the last one is, to have easy access to cold and hot water, this is because the BEAUWATER can be used by using the USB so that the people can enjoy the hot and cold water even in the jungle.

3.0 METHODOLOGY

The main goal of this study is to explain the complicated design process behind mini water dispensers, with a focus on combining usefulness, design, and engineering principles to make sure the devices are strong and safe. The method puts a lot of weight on a few key factors that are essential for the creation of these new devices.

For starters, great care is taken when choosing the materials, which is an important step that makes sure the product will last and be safe for a long time. Adding modern filtration systems is also a very important part of our method because it improves the quality of the water that is dispensed, which leads to higher health standards and happier customers.

In addition, the method puts a lot of emphasis on including features that control temperature, mechanisms that save energy, and strict safety rules. These parts work together to meet the needs and preferences of a wide range of users, making sure that the water dispensing process is smooth and effective in all situations.

Basically, this study goes into great detail about the complicated parts of designing a small water dispenser. It shows the many problems that come out, the creative ways that they are solved, and the close attention to detail that goes into the process. By going into detail about these things, hope to show how creative and technically skilled you have to be to make cutting-edge gadgets that change the way you get water every day.

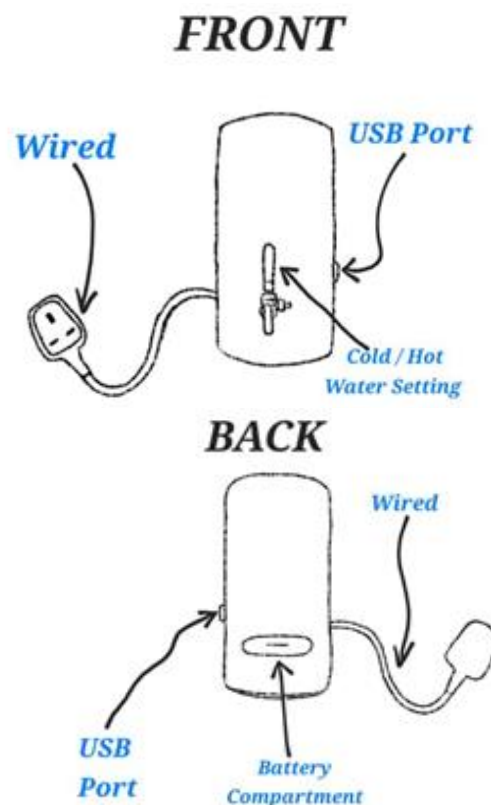


Figure 1.0: BEAUWATER

4.0 RESULTS

The discussion section goes into detail about how BEAUWATER might change people's lives by making it easier for them to access hot and cold water in many places, showing how important it is for the student that want hot and cold water in college or parents to wake up in the middle of the night to prepare the milk for the newborn baby. This part talks about a few important points:

BEAUWATER could cause big changes in users' lifestyles because mini water dispensers are lightweight and portable, the products are simple to move and set up wherever they are needed. This product can be carried to camping or travel because this product provides convenient access to water without taking up much room and can be placed on desks, worktops, or small tables. Mini water dispensers are far more portable than larger water coolers or dispensers. These products can carry them with customers to various spaces, gatherings, or even outside to guarantee that customers always have access to safe drinking water.

Compared to larger models, mini water dispensers use less energy since these products often run-on gravity or low-power electric pumps. This lowers energy use while simultaneously lowering the price of electricity and electric consumption. Compared to larger water coolers or dispensers, mini water dispensers are typically less expensive. This product is an affordable way to supply tiny spaces with safe drinking water without having to pay for pricey installations or upkeep.

One of the best things that BEAUWATER has is it has a high-quality mini water dispenser that has a stylish, robust design, a small footprint, and adequate capacity. It should efficiently provide hot and cold water, with an energy-efficient technology and superior filtration to ensure safe drinking water. Positive customer feedback emphasizes dependability, while a comprehensive warranty and responsive customer service provide value. Overall, it strikes an excellent balance between price, performance, and convenience of use, making it a worthwhile addition to any home or business.

5.0 CONCLUSION

In conclusion, the BEAUWATER represents a significant advancement in the field of tiny water pumps. There are numerous locations where individuals can obtain hot and cold water. Through the integration of engineering, design, and function, BEAUWATER was able to address the changing demands of contemporary living. It is intended for a wide variety of users, like parents searching for a simple way to watch their children after school or students who are unsure of where to find water at the vending machine.

BEAUWATER's primary characteristics, like its battery compatibility, rechargeability, and compact size, make it adaptable and ideal for a variety of applications, including outdoor activities like camping as well as inside use in homes and companies. Its energy-efficient design and adherence to safety regulations demonstrate our commitment to the environment and user well-being. By ensuring that customers can access clean, refreshing water whenever and wherever they need it, BEAUWATER has grown to be a dependable companion. Paying will enable you to do this.meticulous attention to every aspect while designing, closely adhering to all regulations and certifications.

BEAUWATER is simple to use, lightweight, and environmentally friendly, it's more than simply a toy. It's a game-changing device that lessens environmental harm while making it easier to stay hydrated every day. Looking ahead, BEAUWATER's success demonstrates how innovative and committed our team is to pushing the envelope of what is conceivable. We remain committed to providing our customers with solutions that not only meet but also beyond their expectations even as we continue to develop and enhance our technology.

6.0 REFERENCES

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