



Saaghy ®, ultimate art of perfect cocktail

April 21, 2007
Mr. Steve Whitmore
School of Engineering Science
Simon Fraser University
Burnaby, British Columbia
V5A 1S6

Re: ENSC 440/305 Post Mortem for an Automated Cocktail Maker

Dear Mr. Whitmore,

The enclosed document, *Post Mortem report for an Automated Cocktail Maker*, summarizes the activities and accomplishments of our group while designing and implementing an automated cocktail maker device entitled Saaghy™. Our group had faced and overcame different challenges in the past four months but the outcome is a prototype of Saaghy™ which was successfully designed and presented. We are planning to continue the hard work to take this device to the market.

The accompanying document encloses the current state of the project, the deviations from the original plan, the possible future work for the project and its marketing aspects, and the problems we encountered. In addition, each group member provides descriptions of individual contributions to the project and the experiences learned.

SST's dedicated, talented and motivated team of senior engineering students is comprised of Sara Moghaddamjoo, Sara Hezarkhani, Mana Hamidi, Alireza Nematollahi and Behzad Behroozan. For further information or any concern you may have please do not hesitate to contact me by phone at (778) 883-2424 or by email at project-ensc440@sfu.ca.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sara Moghaddamjoo', written in a cursive style.

Sara Moghaddamjoo
President and CEO
Simple Sophisticated Technologies Inc.
<http://www.sstechnologies.ca>



Simple Sophisticated Technologies™

Saaghy™, The ultimate art of perfect cocktail

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Saaghy™, Automated Cocktail Maker Post Mortem

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Submitted to:

Mr. Lakshman One – ENSC 440
Mr. Steve Whitmore – ENSC 305
School of Engineering Science
Simon Fraser University

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Executive Summary

“Scientists study the world as it is; Engineers create the world that has never been.”
-Theodore von Karman

The 21st century is about technology and speed. Devices are engineered to help people’s needs in every aspects of everyday life, from a small coffee maker to the complicated computers. Simple Sophisticated Technologies has considered a new idea in designing a device to accommodate cocktail making both for home or industry use. The quality of the drink will remain the same no matter how many drinks it has made. Saaghy™ can also be used instead of hiring a bartender at a party or event. Saaghy™ can also aid bartender in establishment serving cocktails to speed up operations and services.

Simple Sophisticated Technologies has successfully accomplished its goals for the first phase, proof of concept. The completed tasks are listed as following:

1. Controlling fluid flow through a valve.
2. Mixing 2 fluids using valves.
3. Shaking the desired mix.
4. Pouring the drink into a glass.
5. Using the appropriate user interface to choose the desired drinks.

Since currently our system is fully controlled, the future plan is to improve the device to be more user-friendly and practical. These improvements include:

1. Adding more choices for drinks.
2. Rotating the disk that contains different fluids.
3. Cleaning features for the whole system.
4. Designing custom made fluid containers.
5. Designing a shaker with an opening for ice.
6. Adding an LCD to the user interface.
7. Making the device user programmable.

The Simple Sophisticated Technologies group has accomplished their planned first design phase by end of April 2007.

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Saaghy™, the ultimate art of the perfect cocktail.

Introduction

Saaghy™ is an automated cocktail maker which uses innovative methods for mixing, shaking and cleaning to make serving drinks easier. In order to prepare the user's desired drink; the device will select the required amount from each ingredient and pours them into the shaker. The shaker will mix the ingredients thoroughly in several vertical movements and the drink will be poured into the glass.

The development of Saaghy™ happens in two stages. The first stage comprises the completion of a proof-of-concept device and was successfully achieved by end of April 2007. The second stage is the development of the final design for the commercial rationale expected to be finalized by April 2008.

Glossary

LCD	Liquid Crystal Display
LED	Light Emitting Diode
MC	Microcontroller
SST	Simple Sophisticated Technologies
UI	User Interface

Intended Audience

The main purpose of post-Mortem is to review the experiences of the group members of Simple Sophisticated Technology in designing Saaghy™. This document will indicate the used materials and information in addition to the ones that can be improved. Also SST's members or future managers can use the post mortem document of each project to gain insight about the group members' experiences.

System Design Deviation

The final prototype design of Saaghy™ has several deviations from the proposed design. Some of these deviations were addressed in the functional and design specification documents. The eliminated parts of the device are as follows:

The cleaning system

All three stages of proposed cleaning system have been eliminated from the design because for the prototype device only one valve with two inputs has been used. The reason was to show that the concept of mixing two liquids is possible and can be expanded to more liquids by increasing the number of valves. In the current device the first phase of the cleaning can be shown by placing water

for one of the ingredient bottles, but for the future design tap water will be used for the purpose of cleaning.

The Rotating disc

By using the rotating disc mechanism (Figure 1), the number of moving parts had to be increased which would lead to a more complex system. Therefore for the future marketing prototype the number of valves will be increased instead of using a rotating disc. By using four of the current valve, eight liquids can be mixed. Also because the dimension of the valves is relatively small, as much as 5 valves (10 liquid) can be used for the current dimension of the device.

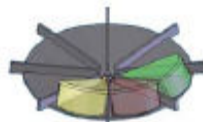


Figure 1: Rotating Disc

The subsystems design deviations are explained for the current state of the device in following sections.

Current State and challenges of Saaghy™

User Interface

The user interface consists of 3 buttons: The middle button is representing 5 different drink options, left button confirming drink selection and the right button stopping the process. There are two LEDs representing the status of device; green LED as a sign of working system and red LED as an error indicator.

Since this project is considered as a proof of concept; a LCD is not used due to its usability constraints; however, it will be implemented in the production line. The LCD should be used to show color pictures and minimum text usage.

Drink Menu

In order to keep the menu easy to follow and eliminated text to the minimum, we have only used 1 button to represent the available 5 drink choices to the user. Once the button is pressed for the first time, the first corresponding pictures will light up. If the button is pressed for the second time, the second drink choice assigned to the same button will be highlighted. Therefore, the button can be pressed 5 times in order to scan through all the possible drink options associated with it. The layout of the buttons is shown in Figure 2.

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The middle button is associated with different drink choices. To simplify the recognition of the available drink choices, specific symbols indicating the drink flavor. Once the button is pressed, the picture assigned to the selected drink lights up. Figure 2 represents the arrangement of these different symbols.

Fluid Multiplexer

After deciding to work with only 2 ingredients to make several drinks, only a 3way normally closed valve was required for the application. We picked Spartan 3826 which works with a relay, and a microcontroller.

Controlling valve is done through programming the microcontroller. Depending on the chosen drink by the user, the program runs the appropriate recipes. In which, the valve stays open for specific time for each ingredient accordingly.

We have adjusted the time by trial and error and as we have tested the valve for about 2 months consecutively, the precision and accuracy of our valve has been very high. Figure 3 confirms this fact.

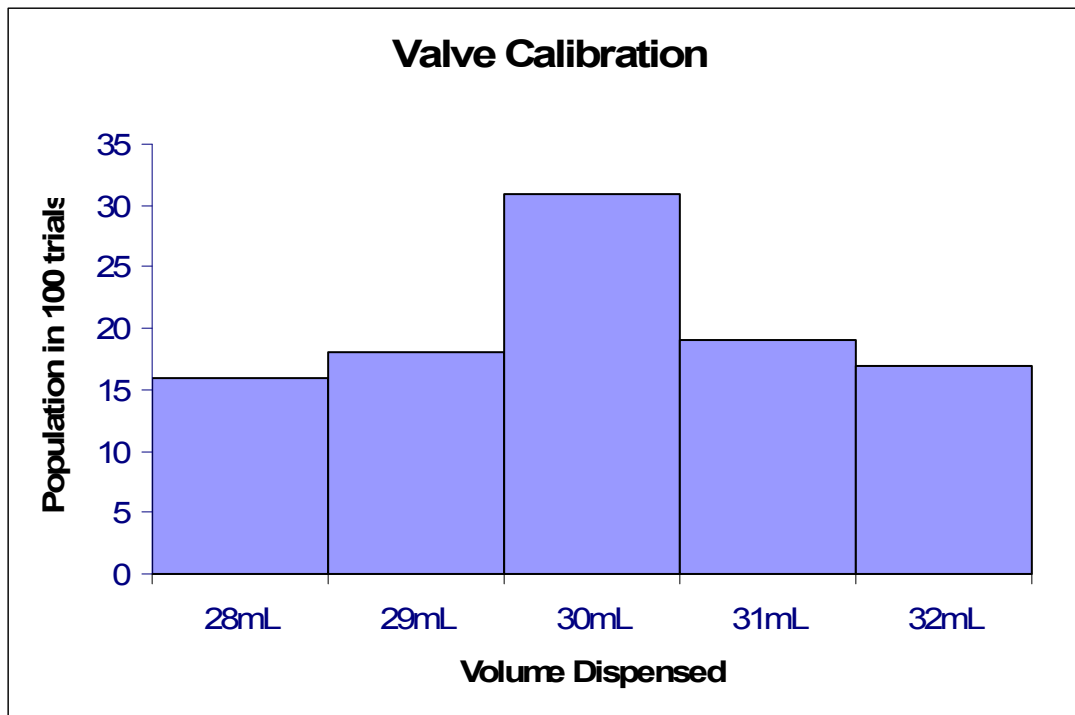


Figure 3: Valve Calibration

The maximum volume we needed from each ingredient was 30ml; therefore we have been testing the valve aiming for 30ml. We used the trial and error to write the program; therefore we measured the volume and the time that each loop in program generates. We got the best result using 500 ms delay and a “for loop” of 1500 which gives us 95% precision within 0.02 mL and an accuracy of 68% within 0.01mL of 30mL.

Shaking Chamber

Shaker uses a combination of sliding system and a crank-slider system to translate the rotating motion of a high torque motor to linear reciprocating motion. The inspiration for this system was from the automobile engines as well as photocopier machines.

This system has many moving parts and therefore needs precise design and regular maintenance. Also, because of the large number of joints in the system, mounting position and angles are very critical in successful motion of the sliding system.

Choice of material for different sections and different joints was also very critical to maintain a reliable system to withstand corrosion, not to fail under different pressure and stress and yet light weight.

Additionally, in order to mount the motor and the rest of the shaker mechanics, a rigid stand was necessary to stabilize the system and to avoid transferring the excessive vibration motion to other sections of the device.

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Body

The body and casing for the device was one of the most challenging sections, because not only it holds and hides all the hardware and circuitry, but it also gives our device the required stability to withstand the vibrations caused by the shaker.

The choice of materials for the casing was mainly based on the stability of the material against vibrations and the isolation capability in order to house the circuitry and isolate them from possible spillage. Also, the intention was to have a transparent body in order show case the equipments and the hardware.

Taking into account all these constraints and requirements, we incorporated three different materials to construct the body. Table 1 shows the type of materials used as well as their properties and their application in our device.

Table 1: Material selection for the body and casing

Material	Properties	Application
Acrylic	Transparent, light weight, dry, cracks easily, relatively expensive	Main body of the device, great for top and sides of the device, and to construct main frame of the device
Wood	Strong, stands vibrations, easy to cut and shape, very low cost	To increase the base area in order to increase the stability and lower the vibrations
Aluminum	Light weight, rigid, easy to cut and shape, stands vibrations, relatively low cost	All the joints and corners are connected together with aluminum to prevent cracking and damage under vibrations and stress due to shaker and bottles' weight

Future Developments Plan

The fluid multiplexer subsystem can be expanded to suit the application of the device, whether it is to be used as a home appliance, or is to be utilized in large bars. Because the main application of the device is to be used for larger devices in large bars and restaurants, the number of valves can be increased to raise the productivity of the device. Instead of limiting the device to choose among only eight possible ingredients in small bottles, each individual valve can be attached to large containers of many different ingredients. Therefore the efficiency and the variety of drink choices available to the user increases.

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The exact design of this subsystem shall be determined based on the marketing analysis in the next development phase.

Shaking chamber design may be changed tremendously in order to increase the shaking power and reduce the noise generated due to the sliding system. However, the alternative design of this subsystem needs a more thorough research.

In the future design of the user interface of the device, significant changes has been considered. As an essential modification, number of buttons and LEDs should be reduced to minimum while providing maximum amount of information. Adding a color LCD screen to the user interface which constantly informs the user by the current state of the device can decrease the number of buttons and LEDs could be reduced tremendously. As previously proposed, preparing custom drinks can be also possible as a feature of the Saaghy™. To be able to make this feature available to the users a USB port could be considered in the design of the device. Consequently, users will be able to load their preferences and custom recipes into the device to increase number the of available drink choices.

Budgetary and Time Constraint

Budget

A comparison of the expected expenditure and the actual spending for each subsystem has been summarized in Table 2 . The initial budget forecast is very close to the final spending and as a result could be covered by the \$500 funding that was received from the School of Engineering Science.

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Table 2: Estimated and Final Expenditure

Sub System	Estimated \$	Final \$
Fluid Multiplexer	60	80
Shaker	150	150
UI	70	5
Body	180	190
Others	70	120
Total	530	545

The only major difference in the predicted and final budget forecast is the amount spent on User Interface which decreased significantly and instead more was spent on electronic and body parts.

Schedule

Figure 4 illustrates the group final schedule. The only major change from the previous schedule is the added extension time which was mostly as a result of lack of help and complexity of the assembly part of the project.

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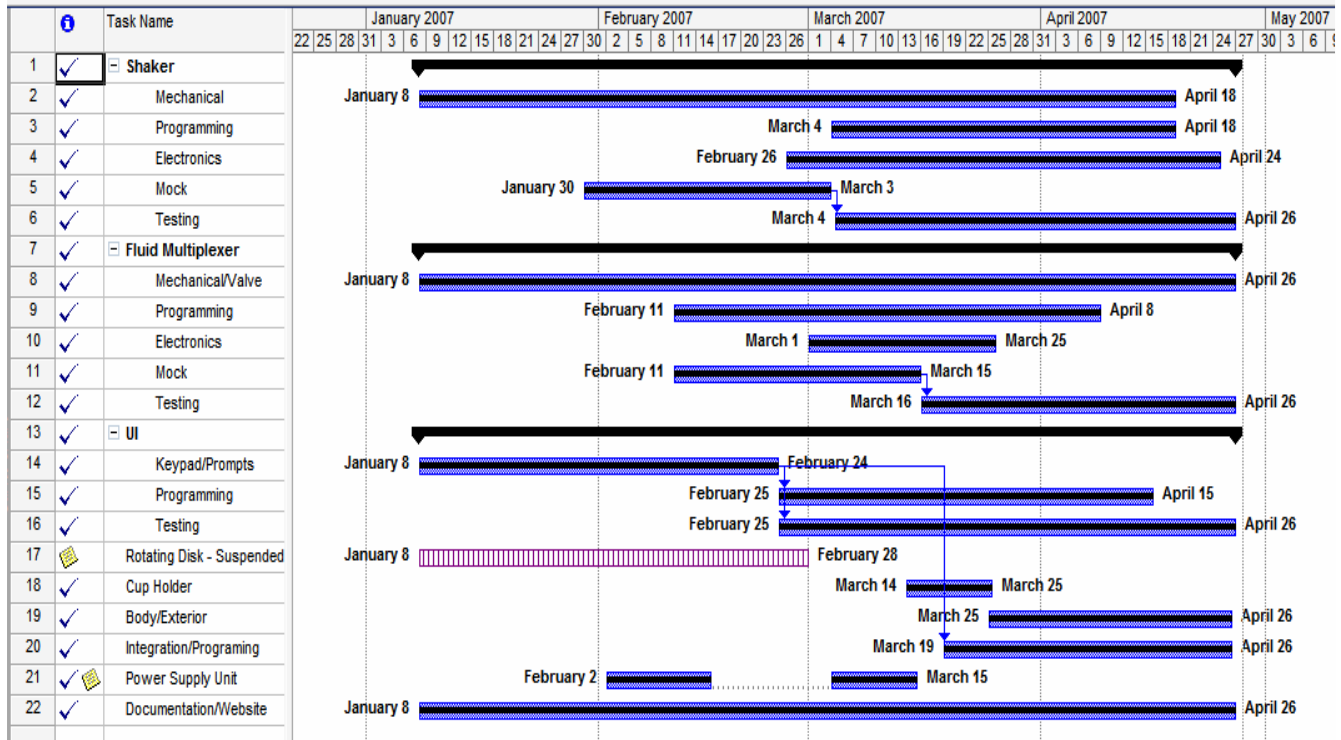


Figure 4: Overall Schedule

Marketability and Intellectual Property

Based on the research and feedback received about Saaghy™ during the past four months, it is evident that the device has some market potential. At this point all the members of SST have confirmed to pursue the project further toward marketing the device. The group has been able to find a distinguished marketing person, Mt. Terry Beech, to take on the business and marketing aspects of the company. On the technical side, even though a working prototype of Saaghy™ has been made, the team believes at least another four months is needed to prepare a prototype to attract investors. Also during the next four months more market analysis will be performed to insure the profitability of the product.

To insure maintaining a good position in the market SST has two main plans to be done before April 2008. The first plan is to use the patent right to Saaghy™ and talk to a patent lawyer in order to file the patent applications. The second plan is to work on the cost effectiveness of Saaghy™ in order to facilitate gaining market share in the home and food industry appliances.

Individual Reflections

As people's experience on a mutual project can be different from one another, below the individual reflection of each member of SST's group has been provided.

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Sara Moghaddamjoo (CEO)

Our journey started unexpectedly about four months ago and led to one of the best experiences of my life. During the process of designing a prototype for Saaghy™, I have learned not only engineering and technical lessons but also many life long lessons which I can apply to various problems in the future. I took the role of a team leader since I am planning to apply for MBA program in Public Policy and Administration and pursue my career in business and management environment after receiving my undergraduate degree in Biomedical Engineering.

The experiences I learned in the past four months gave me a constructive point of view on what challenges I will face as a team leader and what will be the consequence of different approaches to solving the problems. Even though I was very fortunate to have the opportunity to work in a group with the majority being extremely self motivated and accountable, one of the most important challenge I faced was how to deal with the group dynamic problem we had. I realized my most essential responsibility was to solve this problem in order to keep all of my teammates satisfy and to show them their hard work is appreciated. My first approach was to arrange several meetings with group members, both separately and as a group to address the problem directly. Although at the end we had to ask for our instructors' help regarding our problem, I have learned a lot from their suggestions and now I understand that sometime group dynamics problems are unavoidable and I should not be afraid of whistle-blowing as the last resort.

One of the many valuable experiences I learned during the past four months was to realize that in most cases nothing goes as planned and scheduled. The first solution is to have a realistic estimate of the project's magnitude and to always leave extra time for unexpected issues that may come up. Another solution is to have an alternative plan for each subsection of the project in case something goes wrong with the original plan. Also I have learned to keep record of everything for example documents, calculations and even emails as they may become useful at some point.

Besides the life and management experiences I have gained, I was able to develop many technical skills including; making PCB's, designing and troubleshooting circuits, programming with C, using ATMEL AVR Microcontroller, and most importantly working with almost all the tool available in the machine shop. I have also used my civil engineering background to stabilize the structure of our device. Working on the shaker part of the project, the most important technical challenge I faced was the mechanical parts, for example how to drain liquid from the shaker and not to have leakage. We overcame our mechanical challenges by asking experts, searching for existing solutions and sometimes by "trial and error" method.

Although we had many disagreements during the design process, the point that my partners and I all agree on is we all had so much fun and were able to satisfy our desire to complete a working prototype in the limited time we had, no matter what came in our way. When we did not agree on a task sometimes was hurtful but at the end it was all constructive toward our mutual goal. I hope to continue working on this project with my partners and to be able to take it to the next level and hopefully make Saaghy™'s way open to every bar and house.

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Sara Hezarkhani (VP Software)

A sentence stated by Winston Churchill in 1960 says:

“We shape our buildings, thereafter they shape us.”

I think I have realized true meaning of this sentence spending 4 months working on my 440 project along with four other group members. Beside all the technical and academic skills we have gained through out these months, our personalities have also changed and we grew to become a more mature person everyday.

This project has been one of the best experiences of my life. The patience of listening to the others’ opinion, the tolerance of hearing feedbacks and comments and the braveness of confessing to mistakes have been some of the most valuable lessons I have learned. This project showed me how to react to the problems that I face, how to set priorities and manage my life and how to set a boundary between friendship and profession. Having many challenging moments, I learned how and when to make crucial sacrifices.

It is hard to count number of skills gained and lessons I have learned during past four months. Each aspect of this project has provided its own unique and valuable experience. In the technical side, I can say the most important lesson I have learned is to appreciate every single working system, no matter how simple they might appear. There has been a reasonable purpose in the existence of every single screw or simple components in a device. Removing or changing the orientation of any of these parts can affect the functionality of the device. In addition, I have realized that designing and fabricating a product differ considerably. There are several constraints and issues not considered in the design phase. Time lines and schedules can not be complete and it is necessary to constantly revise them.

Finally I have been able to find out about my strengths and weaknesses and to identify my capabilities. I have also learned that nothing is impossible and that hard work will always pay off; as it has been said “nothing good comes easy”.

I would like to thank my three other supportive, motivated and compassionate teammates for all their hard work and for all of our exciting moments. Also, I have to thank my instructors and all those who helped us in successfully completing our project; with numerous constructive advices they showed us how important is to value others knowledge and experience.

We shaped Saaghy, thereafter it shaped us.

Mana Hamidi (VP Design)

As a senior engineering student, after 5 years studying Systems Engineering at Simon Fraser University, I took “Project Documentation and Group Dynamics” along with “Capstone Project” as two of my last classes. The group setting, spontaneous problem solving skills, and the result and goal

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oriented nature of this project was very reflective of a real world scenario, which made the experience far more instructive than a typical course or lab.

The technical challenges that we faced, provided the ideal opportunity for me to apply the theoretical knowledge that I gained in my courses. More specifically I had a chance to apply my expertise in SolidWorks throughout this project. I got the chance to practice some of my weaker skills such as programming. During the last 4 months, there were also times in which I had to go back and refer to the materials of first year in engineering. The project offered a second opportunity to understand certain concepts in a more applied context, which allowed for a better understanding which was absent at the time of their presentation in class. The integrative facet of the project was particularly demanding as it illustrated the importance of not only knowledge in different fields, but also the necessity of the ability to link them in a functional manner.

The group atmosphere illustrated the importance of social skills which are often neglected and overlooked in class. Simple acts of tolerance and patience with fellow co-workers can at times prove to be more helpful than technical expertise as it generates the right atmosphere that can foster technical creativity and aptness.

The vitality of responsibility in group work is often noted, but given our experience in this group, it should not go unnoted in our reflections on the experience. Assumption of responsibility is usually encouraged in groups as means to foster leadership and momentum. Our experience proved assumption of responsibility to be more of an obligation that must be unequivocally followed by every member to ensure group survival and project success. It was the contrasting presence of both the 'responsible' type and the utterly apathetic type in our group which taught us this important lesson.

Group composition and structure proved to be an essential key to success. This is again both in the technical aspect and the social one. While a technically diverse group can be advantageous, it must be ensured that the goal of the project is one and the same between all of the members; and that despite the difference in their technical backgrounds they all share a common motif or passion which will drive them as a unit and not just individuals who are forced to stick together because of their need for each other's technical expertise.

More personally, the project was a means to learn about myself and my reactions in difficult times and under stress. I am happy that the project gave me the chance to grow and make new friendships that unlike most relationships developed under stress and not in the most favorable situations.

As I have had experience in the working environment as a Co-op student, I could easily see how this project class was a snapshot of a real life example in both future work environment and life. It was also surprising to me to learn that personal experiences outside school and technical training can have such a great impact on performance in such projects.

Alireza Nematollahi (VP Technology)

As a senior engineering student, I had a great opportunity to apply my knowledge and experience to design and make prototype of a device. I was able to apply the theory I learned through 4 years of education at SFU to successfully design and implement an embedded system.

My responsibility involved a great deal of mechanics; I had to start learning many different concepts and subjects in material selection and mechanical design. Although it proved to be a very difficult and a tiresome task, I managed to successfully implement the mechanical system and fulfilled my responsibilities in the group. Designing a mechanical system without any previous knowledge or experience in mechanical design, I truly realized that, nothing is simple! The simplest things were the most complex things when I wanted to do them myself. As a result, I learnt to appreciate even the simplest things!!!

Now I appreciate the necessity and critical role of material selection in durability and functionality of a device. Also, because our device was in contact with alcohol, different juices and other liquids, I also appreciate the importance of chemical compatibility and chemical stability of the materials in contact. I also realized how critical engineering ethics.

I spent the first several weeks writing different documents for the project with different styles and contents. Doing so, I was able to improve my writing and documentation skills. I learned how to organize the flow of the contents to have a coherent document from start to finish. I also understood the famous proverb: “A picture is worth a thousand words”.

During the project, I had the chance to work with 4 other great engineering students with different areas of expertise and different personalities. It allowed me to evaluate the problems that could occur at work and in the industry, although in a smaller scale. During these 4 months, I faced many different challenges such as group dynamic problems, personal problems, as well as technical problems due to my limited knowledge and experience.

One of the most important things that I learnt in this project was to expect the unexpected. I realized that, the best way to cope with such situations is to have a better schedule and to leave extra time to compensate for possible problems that may come up during the project. Also, having a plan B for all the major tasks could save time and money and can reduce the amount of stress and pressure.

Because I was taking 4 other courses with this project, it was very critical for me to be able to organize my time efficiently so that I could study my other courses while spending enough time working on my project. Also, I learned the skill of organization and “tidiness”! Two pictures below show the “before-and-after” of the locker that I had packed.

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Figure 5: Before....



Figure 6: ... After!

Finally, I dare say that, I have been changed a lot and have become a better and a more responsible person. I believe I have made great friendships with my partners and all that remains with me is the great memories we shared everyday and every minute of the past 4 months.

Behzad Behroozan (VP Hardware)

Conclusion

In the past thirteen weeks, Simple Sophisticated technologies' members have been able to successfully design the initial prototype of an Automated Cocktail Maker device entitled Saaghy™. Admittedly the group believes that the current prototype device has a lot of room for improvement toward a marketing prototype. Accordingly, the SST team's immediate plan for the next four months is to work on a second prototype in order to attract investors.

Also during the prototype design all the group members of SST have learned many technical and non technical experiences which have been stated in the personal reflection part of this document. All the experiences and memories gained during the past four months would not be possible without the group's high motivation, positive energy and the valuable guidance the group received from their instructors, teacher assistances and families.

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Appendix

Brochure

Thanks To:

Steve Whitmore
Lucky One
Dr. Mehrdad Saif
Brad Boldham
Amir Niroumand
Vinay Kotamraju
Gary Houghton
Vahid Hezarkhani (P.Eng)
Mohammadreza Moghaddamjoo (P.Eng)
Dr. Mehdi Nematollahi
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Marius Haiducu
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Special Thanks to our families for their support and understanding during our sleepless nights.

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Saaghy™

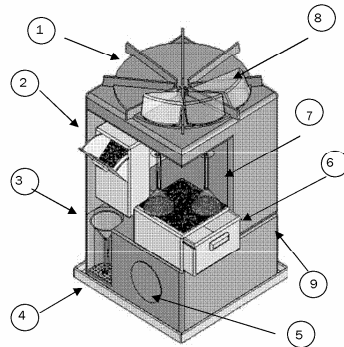
The Ultimate Art
of the Perfect
Cocktail

Saaghy™, the ultimate art of the perfect cocktail.

Outline

- Introduction & System Overview
- S. Moghaddamjoo
- Fluid Multiplexer
- M. Hamidi
- Shaker & Microcontroller
- A. Nematollahi
- User Interface & Body
- S. Hezarkhani
- Budget, Schedule & Marketing
- M. Hamidi
- Conclusion
- S. Moghaddamjoo
- Device Demo

Saaghy™: System



1. Liquor Bottle Holder
2. Shaker
3. Glass Holder
4. Drain
5. User Interface
6. Ice Container
7. Glass Storage
8. Liquor/POP Bottles
9. Power Switch (Not Shown)

Note: The actual device may be different from the above picture.

Features and Benefits:

- User Friendly
- Reliable
- Low Cost
- Relatively Small
- Home/Commercial use
- Upgradeable
- Patent Possible

Simple Sophisticated Technologies

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Survey

* This is an anonymous survey for the purpose of product evaluation.

1. How old are you?

- 19-24 25-29 30-34 35-39 40+

2. What is your educational level?

- High school Some College Undergraduate
 Masters PhD Post Doctoral

3. What is your income level? (Optional)

- less than 24,000 25,000 – 49,999 50,000-74,999 75,000-99,99 More than 100,000

4. How many times per month do you go to a bar?



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- Never Once a week Only on weekends Every night!!

5. How often do you order a Martini when you go to a bar or a restaurant?

- Never Occasionally Usually Always

6. What kind of Martini would you prefer the most? Please list your favorite top 5 Martinis.

7. Do you prefer to have your Martini made by a bartender or perfectly portioned and mixed by a machine?

- Bartender Automated Machine

8. How often would you like to server your guests with their favorite Martinis when you throw a house party?

- Never Occasionally Usually Always

9. Are you comfortable with automated kitchen appliances?

- Yes No

10. If the answer to the last question was “NO”, please indicate why.

11. Would you prefer your appliances to have:

- More features and more buttons More features and less buttons
 Fewer features and less buttons Fewer features and more buttons

12. Would you prefer:

- Graphics and icons Text Audio Graphics and Text

13. How much are you willing to pay for a fully automated cocktail maker?

14. Other Comments:



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Non Disclosure Agreement

NON-DISCLOSURE AND CONFIDENTIALITY AGREEMENT

Simple Sophisticated Technologies Inc.

INTRODUCTION

WHEREAS, Disclosing party possesses certain confidential or proprietary information ("Confidential Information") relating to proposed business activities (collectively, "Business Activities"); and WHEREAS in connection with a relationship between Receiving Party and Disclosing Party (collectively, the "Investment Discussion"), this information will become known to Receiving Party, Disclosing Party desire to prevent the unauthorized use and disclosure of this Confidential Information. NOW THEREFORE, in consideration of these premises and for other good and valuable consideration Receipt of which is hereby acknowledged, the parties agree as follows:

This Agreement is made on _____ (the "Effective Date") by and between (the Receiving Party) and Simple Sophisticated Technologies Inc. (the "Disclosing Party"). The parties hereby agree as follows:

In its sole discretion, the Disclosing Party will provide to the Receiving Party certain Confidential Information related to the Business Activities for the limited purpose of allowing the Receiving Party to determine the attractiveness of investment with Simple Sophisticated Technologies Inc. relating to Business Activities in accordance with the following terms and conditions:

1. Definition. For the purposes of the Agreement "confidential information" shall mean all strategic and development plans, financial condition, business plans, personnel identities, data, business records, project records, market report, and information, employee lists, policies and procedures, information relating to processes, technologies or theory, logos, trademarks, and all other information which may be disclosed by Disclosing Party or to which Receiving Party may be provided access by Disclosing Party or others in accordance with this Agreement, or which is generated as a result of or no connection with the Investment Discussion which is not generally available to the public.
2. Nondisclosure Obligations. Receiving Party promises and agrees to receive and hold the Confidential Information in confidence. Without limiting the generality of the foregoing, Receiving Party further promises and agrees:

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- A. to protect and safeguard the Confidential Information against unauthorized use, publication or disclosure.
 - B. not to use any of the Confidential Information except for purposes related to the Investment Discussion.
 - C. not to, directly or indirectly, in any way, reveal, report, publish, disclose, transfer or otherwise use any of the Confidential Information except as specifically authorized by Disclosing Party in accordance with this Confidentiality Agreement.
 - D. not to use any Confidential Information to compete with, denigrate or obtain unfair advantage vis a vis firms, organizations, institutions, or individuals identified within the Confidential Information.
 - E. to not further disclose the information and to be strictly prohibited from making any use, publishing or otherwise disclosing to others, or permitting others to use for their benefit or to the detriment of Disclosing Party, any of the confidential Information.
 - G. to comply with any other reasonable security measures to protect the integrity and confidentiality of the Confidential Information.
 - H. to delete, purge, destroy or otherwise render unusable any and all of the Confidential Information upon completion of the Investment Discussion and to provide confirmation of the same to the Disclosing Party.
3. Restrictions. The restrictions herein provided shall not apply with respect to "Confidential Information" which:
- A. Is known by the Receiving Party at the time of receipt; or
 - B. Is or becomes a part of the public domain without breach of this Agreement by the Receiving Party; or
 - C. Is legitimately obtained by the Receiving Party without a commitment of confidentiality from a third party; or
 - D. Is disclosed by the Disclosing Party to a third party without a commitment of confidentiality by the third party; or
 - E. Is independently developed by the Receiving Party; or
 - F. Is disclosed pursuant to judicial action or government regulations, provided the Receiving Party notifies the Disclosing Party prior to such disclosure and cooperates

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with the Disclosing Party in the event the Disclosing Party elects to legally contest and avoid such disclosure.

4. No Right to Confidential Information.

A. Receiving Party hereby agrees and acknowledges that no license, either express or implied, is hereby granted to Receiving Party by Disclosing Party to use any of the Confidential Information in any way, capacity, method or process except as explicitly identified by the disclosing party.

B. Receiving Party further agrees that all inventions, improvements, copyrightable works and designs relating to machines, methods, compositions, or products directly resulting from or relating to the Confidential Information and the right to market, use, license and franchise the Confidential Information or the ideas, concepts, methods or practices embodied therein shall remain the exclusive property of the Disclosing Party or legal agent and Receiving Party has no right or title thereto.

5. Rights and Licenses. This Agreement and the finishing of "Confidential Information" as provided herein shall not be construed as establishing, either expressly or by implication, any grant of rights or licenses to the Receiving Party or any relationship between the parties.

6. Ownership. All tangible information, including drawings, specifications and other information submitted here under by the Disclosing Party to the Receiving Party, shall remain the property of the rightful owners. At the conclusion of the Investment Discussion the Receiving Party shall promptly destroy or, upon written request, return to the Disclosing Party all tangible information, and all copies thereof, related to "Confidential Information".

7. Remedies. Receiving Party understands and acknowledges that any disclosure or misappropriation of any of the Confidential Information in violation of this Agreement may cause Disclosing Party irreparable harm, the amount of which may be difficult to ascertain and, therefore, agrees that Disclosing Party shall have the right to apply to a court of competent jurisdiction for an order restraining any such further disclosure or misappropriation and for such other relief as Disclosing Party shall deem appropriate. Such right of Disclosing Party shall be in addition to Remedies otherwise available to the Disclosing Party at law or in equity.

8. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Province of British Columbia.

9. Term and Termination. This Agreement shall commence on the date first written above. Receiving Party's obligations with respect to the Confidential Information hereunder shall continue in full force and effect until further notice from Disclosing Party.



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10. Entire Agreement. This Agreement constitutes the sole understanding of the parties about this subject matter and may not be amended or modified except in writing signed by each of the parties to the Agreement.

Disclosing Party Representative

Receiving Party

Date _____

Date: _____

Name: _____

Sara Moghaddamjoo

Title: _____

Chief Executive Officer

Organization: _____

Simple Sophisticated Technologies Inc.

Other members of Disclosing Party

1. Name: _____ Date: _____

Title: _____

2. Name: _____ Date: _____

Title: _____

3. Name: _____ Date: _____

Title: _____

4. Name: _____ Date: _____

Title: _____



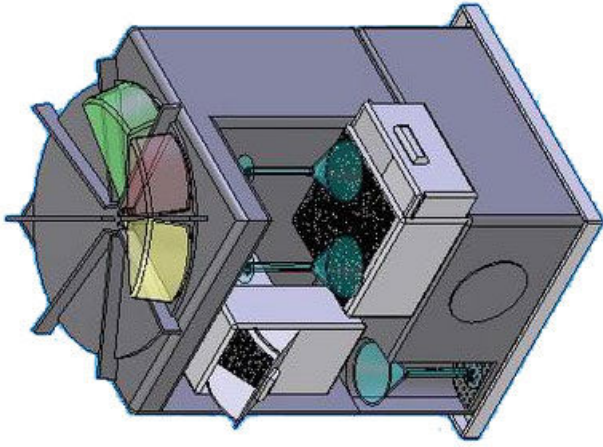
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English User's Manual

Automated Cocktail Maker



IMPORTANT SAFEGUARDS

When using an electrical appliance, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and/or injury to persons including the following:

1. READ ALL INSTRUCTIONS BEFORE USING.
2. To protect against risk of electric shock, do not place cord, plug, or base of appliance in water or any other liquid.
3. Close supervision is necessary when any appliance is used by or near children.
4. Unplug from outlet when not in use, before putting on or taking off parts, and before cleaning.
5. Avoid contact with moving parts. Keep hands, hair and clothing away during operation to reduce the risk of injury to persons, and/or damage to the appliance.
6. Do not operate any appliance with a damaged cord or plug, or after the appliance malfunctions, or is dropped or damaged in any manner.
7. Do not let cord hang over edge of table or counter, or touch hot surfaces.
8. Do not place on or near a hot gas or electric burner or in a heated oven.

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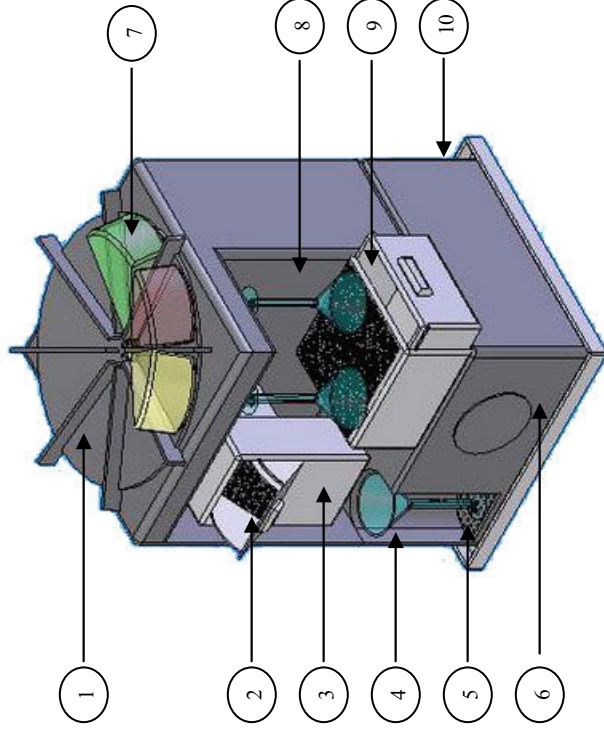
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9. Do not use appliance for other than intended use.
10. To insert plug, grasp it firmly and guide it into outlet.
11. To disconnect appliance, grasp plug and remove it from outlet. Do not pull or yank on the cord or appliance.
12. Before each use, inspect the line cord for cuts and/or abrasion marks. If any are found, this indicates that the appliance should be serviced and the line cord replaced.
13. **DO NOT OPERATE APPLIANCE IF THE LINE CORD SHOWS ANY DAMAGE.**

OPERATING INSTRUCTIONS

(Actual device may be different)



**SAVE THESE INSTRUCTIONS
FOR YOUR RECORDS**

FEATURES AND BENEFITS

The Parts:



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- 1. Liquor Bottle Holder:**
Insert the liquor, pop and/or juice bottles here.
- 2. Ice Jug:**
Pour ice cubes in the ice jug to keep the drink cold.
- 3. Shaker:**
Mixes and shakes the ingredients.
- 4. Glass Holder:**
Holds the glass after the mixing is finished.
- 5. Drain:**
Avoids the spillage and collects the spilt liquid.
- 6. Liquor/POP bottles:**
Insert the liquor cartridges here.
- 7. Glass Storage:**
Holds and stores clean glasses.
- 8. Ice Container:**
Stores ice cubes to keep the glasses in glass storage cold.
- 9. Control Panel:**
Choose drinks and create your own drink.
- 10. ON/OFF Switch, Cord Storage (Not shown):**
On/Off switch and cord plug.

HOW TO USE:

NOTE:

This appliance has a polarized plug. AS a safety feature, this plug fits in a polarized outlet only one way. If the plug does not fit into the outlet, reverse the plug and try again. If it still does not fit, contact a qualified electrician. Do not attempt to defeat this safety feature.

Initial Use:

Before using this appliance for the first time, insert the cartridges as instructed on the bottle holder. Make sure the bottles are attached properly.

Remove the vent sticker from the back of the bottle to equalize the pressure of the bottle and outside.

Ensure that the device is set to OFF before plugging in the power cord.

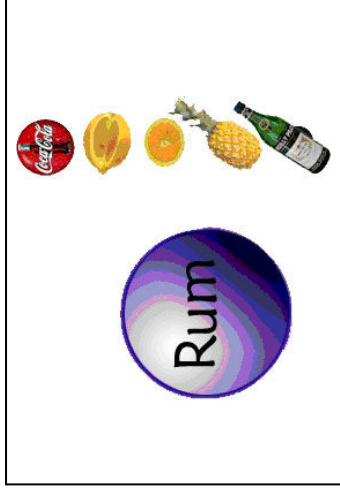
To Make a Drink:



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Turn on the device. The red light should go on momentarily before the device is ready. Wait until the red light is off and green light is on.

Select a drink by choosing the main ingredient (i.e. Rum) and then the flavor (i.e. Lime). Pressing the main ingredient button loops through the available flavors.



Confirm the selection by pressing the SELECT button.

Sit back until the drink is being created and mixed for you. Red light should go on while the drink is being created.

You can cancel the process at anytime by pressing the CANCEL button.

NOTE:

- Do NOT insert a glass in the glass holder while the drink is being mixed.

When your drink is ready, the system notifies you by a continuous buzzing sound for 2 seconds. After the buzz, the green light should go on, indicating that the drink is ready.

To pour the drink into the glass, insert the glass into the glass holder and wait until the glass is full.

Remove the glass and enjoy your drink!

CLEANING AND STORAGE

Cleaning

Clean the shaking cup and lid and ice container in warm soapy water.

Wipe the shaking chamber door clean with damp cloth.

Dry all parts thoroughly.

Storage



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Unplug the unit. Store in a clean, dry place. Never store it while it is still plugged in.

Never wrap cord tightly around the appliance. Do not put any stress on the cord where it enters the unit, as it could cause the cord to fray and break.

SAFETY FEATURE

The unit is equipped with a safety feature that automatically stops the unit if the motor overheats.

WARRANTY

This product carries a warranty that it will be free from defects in material and workmanship for a period of two years from the date of purchase.

NOTE: This warranty does not cover damages resulting from accident, misuse or abuse, lack of reasonable care.