Marketing Principles (MGMT 2430)

Final Report:
Marketing Plan for RPI Design Lab

Section 1
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Our marketing plan for the Design Lab consists of redesigning their website and social media accounts. The Design Lab is an organization that helps students understand and work on projects for real companies. The current website and social media accounts for the Design Lab are not at where they should be in terms of quality. Both the website and social media accounts need to be better utilized in order to help attract more companies. After working on the website, the plan is then emailing the companies directly about the Design Lab and mentioning our new website. With an appealing website, the companies will have a better understanding of how the Design Lab works and hopefully would then work with the Design Lab.

The Design Lab is a great way for students to get experience in the real world, while it gives companies a chance to work on complex projects with some of the brightest students in the world. The main objective of the Design Lab is to obtain as many sponsors as possible for the student projects. Companies are a key factor in giving the lab reliable projects to do, so that students can complete it properly in order to benefit the company. The Design Lab faculty members will need to consistently network with these companies in order to help the lab attract attention. Big companies will be able to provide the Design Lab with more and larger projects along with more of a budget to work with, while smaller companies may provide students easier tasks at hand. One main goal for our marketing plan is to see what our competition is and evaluate our strengths and weaknesses against them. The lab needs to also find the right companies and how to go about impressing each company. Students and the lab need to collaborate effectively in order to fully complete the project because both are vital in the company's success. Other outside sources will help fill in the missing pieces of our marketing objective to ensure that projects will be successful.

The Design Lab at RPI is a course that is required for seniors of eight specific engineering majors. It is a great way for students and companies to be interacting with each other before the students graduate. The students start the course off by learning about the market in which their major entails. For example, a biomedical major would research the market of medical equipment. This helps students understand which companies are successful and also the products that are needed in the

industry. After this, the professors and board members of the Design Lab go and plan out certain projects with companies for the students to begin working on. The students then go ahead and build the product if it is feasible or design the model or plan for something that is infeasible.

The Design Lab is a very unique program, but there are many universities that offer similar programs to the Design Lab. Some of the top universities in the country such as Harvard, Princeton, Brown and MIT, offer similar capstone programs. Harvard offers a capstone program in software engineering. For their projects, they get into groups of five or six people and work on their semester long projects. The project is a complete team effort, and throughout the semester team members gather, plan, implement, test, and document their findings. The students are given an opportunity to propose the projects that they want to work on. The projects are intending to improve the world for research or other purposes as well. At Harvard, a key aspect of their projects is the 'customer' for each project. The 'customer' for each project defaults to the professor, unless a better customer, such as a field expert, can be identified by the team members. Princeton offers chemical and biological engineering capstone projects for their students. The professor of that capstone course called the projects "a dress rehearsal for the real world." At Brown University, capstones can be designed and executed by students during their senior year. Students develop their own product ideas. They can discuss these ideas with faculty members. Each group selects a faculty member to advise them while they work on the project throughout the semester. The timeline for the students at Brown is somewhat flexible. Project applications are due by March, but students can apply right when the semester starts in January. Lastly, at MIT, undergraduate students in the department of civil and environmental engineering complete their curriculum by doing a capstone project. These projects can be done individually, in pairs, or in groups, and they encourage students to use and build upon the knowledge and skills they've gained throughout their undergraduate experience. The capstones at MIT provide students with the opportunity to take on some of the biggest challenges in the field. This allows for deep engagement with real-world problems. Some of the problems that students at MIT take on are

optimizing public transportation, tracking air and soil quality in forests, and developing seismic barrier protection for critical infrastructure.

The Design Lab has several strengths. The Design Lab is very beneficial for both students and companies. Students get real-world experience with potential future employers. It prepares students for the work-force in a big way. On the other hand, companies also experience several benefits by working with the Design Lab. Companies can have their problems solved by some of the brightest engineering students in the country. Companies own the intellectual property that students come up, so they can receive a return on their investment in the marketplace. It is also beneficial for companies, because internal research and development, new product development can be very expensive for companies. The Design Lab is a much less expensive alternative for companies, and it will still create high quality solutions for them. Since the Design Lab opened in the fall of 2000, over 10,000 students have engaged in their project based learning experiences.

The Design Lab does also have some weaknesses. It is oftentimes difficult for the Design Lab to get sponsors, especially new sponsors. Not having enough sponsors means that there aren't enough projects for students to work on. Another weakness of the Design Lab is that there isn't a very strong marketing plan currently in place to attract those new sponsors to work with. Design Lab social media accounts are underused, and the website has been upgraded, but it could still use further upgrades.

A positive for the Design Lab, is that there are many opportunities for them to improve. First of all, RPI is home to some of the brightest engineering students in the country. That alone is very appealing to potential sponsors. Another plus for the Design Lab, is that it differs from other universities' capstone projects, because for the Design Lab, the company introduces a project and not the students. This is more appealing for companies, because they know exactly what the students are focusing on throughout their semester. Because of this, the companies can help them along the way, whereas for other capstone projects, it's all on the students and they don't necessarily get adequate guidance for their projects.

There are some potential threats for the Design Lab that could pop up over time. First, many of the schools that are similar to RPI in terms of academics have similar programs to the Design Lab. Universities like Harvard, Brown, and MIT are considered by many to be more prestigious than RPI, and companies may view those programs as a better option than the Design Lab. Another big threat for the Design Lab is the fact that they need capital to continue moving forward. A lack of projects could put a damper on the success of the Design Lab in the future.

The objective of our plan is to identify potential sponsors and to improve our existing marketing materials for the Design Lab. RPI does a good job networking with companies by having career fairs and the Design Lab. Some of the companies that attend the career fair each year at RPI are the same companies that work with RPI in the Design Lab. These companies who look for engineering students will more likely come to a school like RPI to hire students. The companies that are seen at the career fair or other companies that look for engineering students would be potential sponsors for the Design Lab. Even existing companies who work with the Design Lab could be potential sponsors as well.

Marketing strategy is a very important part of any marketing plan. It is especially important for the Design Lab, because it needs a revamped marketing strategy in order to come up with new ways to get new sponsors, so that students have enough projects to work on. For the Design Lab, there are several different ways to go about segmenting the market. One focus could be to get sponsors based on their geographic location. It would be easier for students to work with companies that were close to RPI opposed to companies on the other side of the country. By working with local companies, students could meet directly with company mentors instead of having to rely on Skype or similar programs for meetings. A second focus could be to differentiate between established companies and start-up companies. Established companies have more capital than start-ups do and would be more likely to work with the Design Lab on a project than a start-up would be. A third focus is to separate companies based on what types of projects they do. The Design Lab has to work with companies with

internal research and development departments with engineering problems. It can't just be any company that can work with the Design Lab.

Our marketing plan involves targeting a few different markets. Companies from all over the world can be targeted by the Design Lab. It does not just have to be local companies, because of the ease of communication in modern times. It's very easy to communicate with companies that are halfway across the world because of the technology that exists in modern times. We will also focus on targeting more established companies than start-ups. As previously mentioned, this is because established companies have more capital lying around than start-ups do, and they're more likely to reach out to the Design Lab as a result. And lastly, engineering based companies with internal research and development should be targeted. Students of eight different majors are all required to participate in the Design Lab during their senior year. These majors include: aerospace engineering, biomedical engineering, computer and systems engineering, design innovation and society, electrical engineering, industrial and systems engineering, material engineering, mechanical engineering. Companies that do work in any of these fields should be targeted by the Design Lab.

There are a couple of things that differentiate the Design Lab from its competition. First, in the Design Lab, companies give students problems to solve. The top competitors to the Design Lab all have their students propose projects to work on. The Design Lab takes a different approach and has the companies provide a problem for the students to come up with ideas for. This feature of the Design Lab is what really makes this project a real-life thing for the students. Secondly, the Design Lab is unique because companies work directly with students and offer them assistance and guidance. The Design Lab has students work with the companies throughout the process so that students know exactly what the companies are looking for. For other universities' capstone projects, companies are not involved throughout the process, and only sometimes they'll be able to see the final result of what students have come up with throughout the semester. Working directly with companies makes the Design Lab very unique, and it provides a further benefit to students.

The Design Lab has the potential to have a very strong position in the market. The Design Lab has what customers want. Companies want solutions to the problems that they present to students. The groups of students in the Design Lab will work collaboratively to complete prototypes or products that solves the problems that the companies present to them. Once again, the Design Lab is very unique because of the interaction that exists between companies and students. The Design Lab has much more interaction between companies and students than other universities' capstone projects, and this sets the Design Lab apart from those programs. As shown in Exhibit 5, the Design Lab does a high quality job for a low cost. This carves them out a very favorable position in the market compared to internal research and development and consulting companies.

At the beginning of the marketing tactics we have the 4P's, Product, Price, Place, and Promotion. The Design Lab's product is more of a combination of both a product and service as the Design Lab offers the intellectual services of its students, which can include the intellectual property (IP) to be used as products. This is the fundamental purpose of the Design Lab and needs no current remodeling to attract further sponsors. For the price, the Design Lab has separate pricing strategies depending on the purpose of the project. Should the sponsor wish to own the IP of the project upon completion, a price of $20,000 per semester would be incurred. Should the sponsor not desire the IP as part of their company then the price is cut in half to $10,000 per semester. The Design Lab also offers its services to non-profit organizations, to which the price is equal to the product development costs. The Design Lab's location (place) is limited to RPI Jonsson Engineering Center, but through technologies like Skype, the Design Lab has the potential to work with companies from all over the world.

The promotion structure that we have developed for Design Lab includes a variety of elements. Personal selling involves interpersonal interactions between salespeople and sponsors. In order to increase the number of closed sales, we think that it is important to proportionally increase the amount of this interaction. To achieve that, promotion should be structured in such a way that

potential sponsors on different stages of their path to signing the contract get different marketing materials and communication with them performed by different marketing channels. (Exhibit 1)

The overview of it is following:

1. A lot of people interact with content that Design Lab should publish via Social Media

2. Part of the audience is interested and go to the website

3. Part of them click on contact form and gives the Design Lab their email

4. The last part most likely contain potential sponsors and receives special content via email.

More details about each step:

The first step of our promotion structure is the interaction with people via social media. We think that "storytelling" would be good entry level communication with the potential sponsors. The content of it may be narrative structured stories about current projects that the Design Lab is running, which should include some media content such as photos of prototypes for example. Again, the content highly depends on the project. The proper use of social network algorithms, like keywords or hashtags, would let the post spread out across the business people that are more likely to become Design lab sponsors. One of the cheapest and most effective ways to get this content is to add something like weekly reports to the syllabus, so group members would have to report about their progress. In addition, the Design Lab can ask their sponsors to repost the content and to collaborate. As there is more information about the Design Lab online, more people get engaged with the Design Lab.

As we add links to every Social Media post, we direct the audience from social networks to the Design Lab website. The Design Lab's website is functional, but currently serves as a hub of information rather than a tool that can be used to help with marketing the Design Lab as a premium service. Therefore a shift in purpose is needed from informational to persuasive, and can be accomplished through several types of changes. Some of the more common and easy fixes include

information being unnecessarily repeated, pages that do not contribute much to the website, and pages that have similar purposes and can be combined to clean up the website. Starting with the Home Page, interested sponsors should have an clear and easy pathway that can lead them into contacting the Design Lab and setting up a project. However, the Home Page contains no place where interested sponsors can find who to contact. There is a general contact information footer, but having a large icon that serves to tell sponsors "CLICK HERE" will greatly help. In addition, every page should contain a clear and consistent location where interested sponsors can click to contact the Design Lab. To finish off the home page, a video could be added to catch the attention of potential sponsors. Such a video could contain an overview of the Design Lab and what has been accomplished there. Kathryn A. Dannemann, the Design Lab Director could perform a voice over and Design Lab alumni could tell stories about their experiences with the Design Lab.

In the About tab, the first three pages are relatively short and all serve to give a summary of the Design Lab, through a description of the course, its mission, and certain statistics. Therefore combining them would reduce clutter on the website. Honing in on the mission statement, we believe that it is a long one and have reworked it in Exhibit 6. In the Project tab, it is somewhat confusing as to the purpose, and moreover what was accomplished throughout the project duration. Here, a video could be presented describing the aim of the project, and a basic description of what was accomplished could be given. As some projects contain IP's not owned by RPI, it is understandable that not everything can be revealed, and this would be something to take into account when creating the video. In addition to a video, project specific feedback could be taken from a post project survey that would be completed by both the sponsor representative and the students and be used to help ground the project. This makes a project easy to understand and relate to for potential sponsors.

Other smaller things include a potential redesign of the statistics due to their clickable appearance, unnecessarily having a link to the Design Lab's Home page in the Contact tab, and the Benefits of Sponsorship & Why the Design Lab pages working better when combined. As a final note,

it is extremely important to keep the website as updated as possible in both the content/information being presented as well as more aesthetic features. An out-of-date website with less than satisfactory graphics can give potential sponsors a bad first impression of the Design Lab, and could prevent them from ever becoming a sponsor.

The next step is about handling all of the emails that we get from a variety of sources, like the contact form on the website. We would recommend using an email sales funnel to achieve better efficiency of personal sales. There is a special software that can be used or it is also possible to write the script. This solution is very functional, you can randomly send different types of content and then understand which one is the most attractive.

Using this method for the Design Lab can help build long-term relationships with the potential sponsor, so it is possible to communicate with the sponsors over time. For example, the Design lab has a sponsor who has agreed with everything, but not with the price. Over time, this person will receive content with some special pricing offers. At the same time, the sponsor who didn't agree with timing can get the email with different timing offers. It can have the structure displayed on Exhibit 2 or be more complicated where are a lot of hypothesis are tested and sources of the user plays the role like on Exhibit 3.

Finally, we have developed a flyer (Exhibit 4). It is an example of marketing material which can be used as the content for email. This can be an used as a content of the first touch email, which can be send to the people who are potential sponsors, but never heard about the Design Lab.

One of the key advantages of this promotion structure is that the efficiency of each element can be checked and it is possible to see what marketing materials works better and what content leads to increasing the number of sponsors.

In the initial stages of planning this project, our team set out to make a marketing plan using the concepts learned in Marketing Principles. This project sought to help the RPI Design Lab create a

consistent flow of potential sponsors and increase the number of sponsors that they have. With the final product created, our team accomplished all of these goals. The two main areas of focus on which our team focused on were the redesign suggestions for Design lab website and the implementation of an email sales funnel. In the end, our marketing plan contains the ability to track potential sponsors on every stage of their path to signing the final contract with the Design Lab.
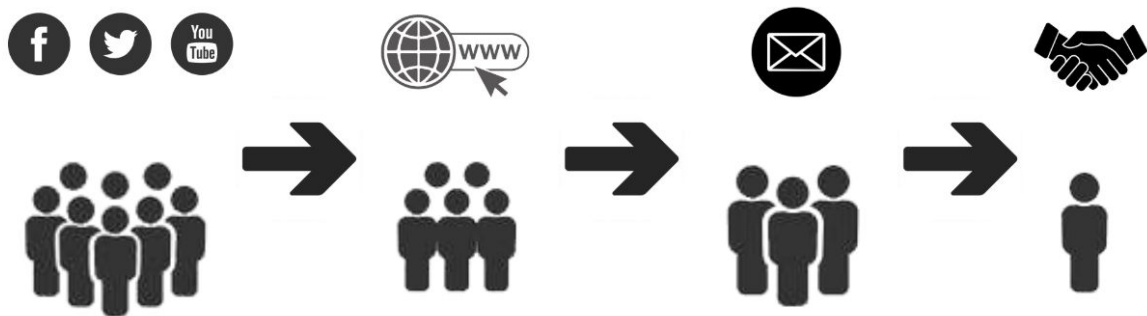
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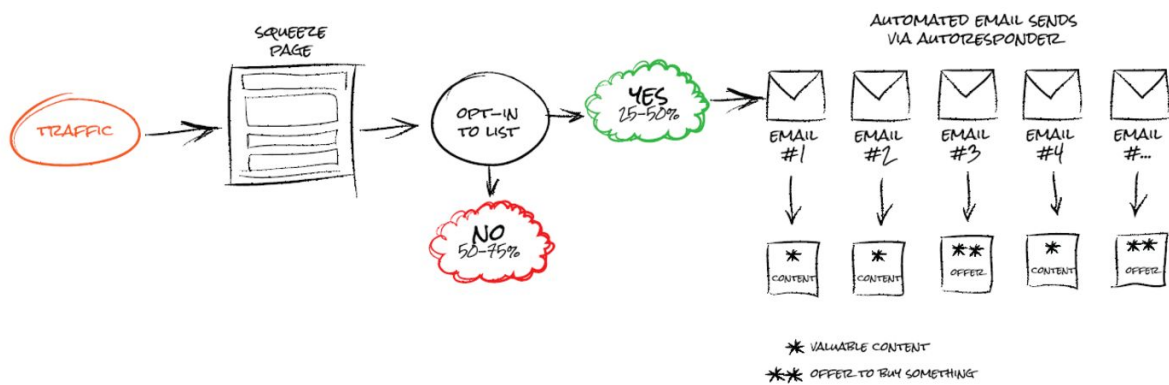- https://www.brown.edu/academics/education/undergraduate/capstone/undergraduate-capstone

- https://cee.mit.edu/undergraduate/capstone/
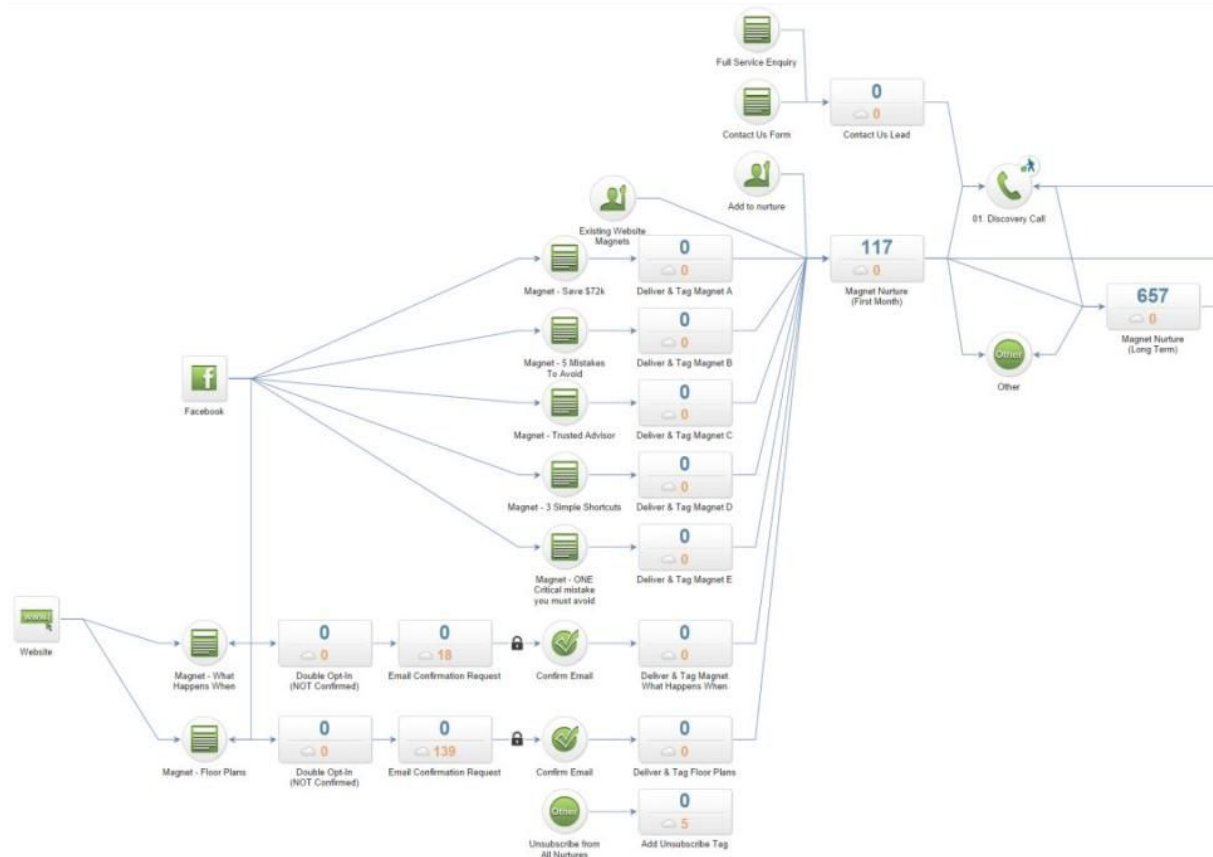
Exhibits:

1

Promotion Structure

2

A SIMPLE EMAIL SALES FUNNEL

THE DESIGN LAB at Rensselaer

REAL-WORLD CAPSTONE DESIGN EXPERIENCES THAT INTEGRATE MULTIDISCIPLINARY ENGI-NEERING DESIGN SOLUTIONS AND DELIVER RESULTS.

We aim to assist in research & development by solving multidisciplinary problems, giving students real world experience and providing companies talented and motivated student problem solvers

BENEFITS FOR SPONSORS

■ INNOVATIVE THINKING

Industry leaders such as General Electric, Boeing, Corning, and Raytheon have reaped the benefits of sponsoring capstone projects at Rensselaer's Design Lab. They have identified viable solutions to some of their most pressing challenges.

■ NEW IDEAS

The Design Lab provides sponsors with new ideas and a creative, out of the box style of thinking. Sponsors walk away with innovative solutions to real-world problems. Students will be encouraged and excited to work on these projects.

■ AN INNOVATION PIPELINE

The Design Lab's process provides companies with an ideal point of entry to an ongoing relationship, not just with the Design Lab, but with Rensselaer as a whole. As part of that relationship, companies gain access to a wealth of critical resources: world-class faculty, advanced centers for multidisciplinary problem solving and state-of-the-art facilities.

■ FRESH TEAM

The process of the Design Lab begins with a team of students being assembled. Students submit an introductory memo and resume to express interest in a Design Lab project. After reviewing project requirements, the Design Lab matches these motivated students with projects that fit their major and skill set.

■ INTELLECTUAL PROPERTY

One benefit from a company's perspective of working with the Design Lab is the intellectual property. The company owns the intellectual property associated with their project, which allows them to bring it to the market and receive a return on their investment.

■ PRACTICAL SOLUTIONS

The solutions that students come up with are very practical. As company mentors work closely with Rensselaer students on their project, they get the focused attention of some of the country's brightest and most enthusiastic engineering students.

OUR PROJECTS

CORNING

DESIGN APPLICATIONS FOR LIGHT DIFFUSING GLASS FIBER OPTICS

VELCRO

STUDY THE FEASIBIL-ITY OF USING VELCRO BRAND CONDUCTIVE HOOK.

GE

TURBINE BLADE DE-ICING WITH MICRO-WAVES - ANTENNA

MOMENTIVE

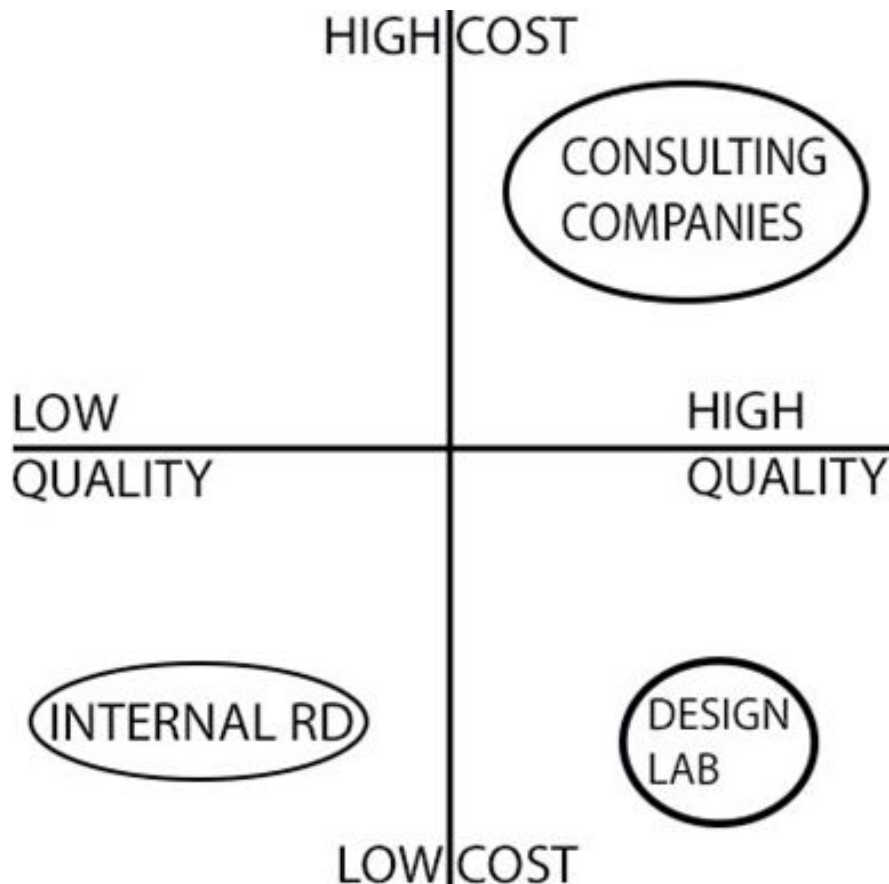DETERMINE THE KINETICS OF CURING WITH THE UV LIGHT

Visit the website and contact us for more information

CONTACTS

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5

6.

Mission Statement (MS) Critique & Improvement Suggestions

General Comments:
- If the Design Lab wants more companies to use them, their MS should include what the Design Lab can do for companies, and not the other way around.
- The MS as a whole is imposing due to its length, MS's do not need to be this long and specific

Listing the name is not needed for a mission statement; rather saying "We provide clinical real world…" is sufficient

How is this different from "real world experiences"? We do not think using this word is necessary.

The O.T. Swanson Multidisciplinary Design Laboratory (a.k.a. the Design Lab) at Rensselaer provides clinical real world experiences for students that build confidence and teaches integration of discipline-specific knowledge with practice on challenging multidisciplinary design projects. As educators, we strive to meet the needs of today's young as they become engineers. We show students what it means to be an engineer and how engineers help people and contribute to society.

These statements cater to students, not to companies. Also the many uses of "engineer" only stand to narrow the range of potential students

Improvement Suggestions:
- Mention how talented/skilled the students are
- Mention how the Design Lab can help out companies with their problems
- We understand that part of the Design Lab's goal is to help students, so it would be okay to have a small part dedicated to that

Possible Mission Statements (Could be used separately or in conjunction with one another):
- We provide motivated students with real world experience solving multidisciplinary projects
- We aim to assist in research & development by solving multidisciplinary problems
- We provide talented students to help solve real world, multidisciplinary problems
- We offer students a privileged experience to develop and grow confident in themselves