The Ife of a DUS Nessman



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The Career

If you Imagine a businessman you probably see a person in a black suit, white shirt, holding a briefcase. This is not the case with Louis... Louis is the owner of igrab an online kitchen company and even better he can wear whatever he likes to work. His business sells their goods and service over the internet. Unlike a physical store, Louis uses digital platforms to showcase their products and service all from the comfort of his office chair. Louis' business model follows the engineering design cycle to ensure there are products available for his customers to purchase.



Why Igrab?

Companies like igrab are becoming more popular because people are busy. The reason igrab is so unique is because people can visit from anywhere in Australia and at any time because of the internet, the internet is never closed.

When interviewing Louis he shared that the reason behind the name igrab which is grabbing the handle and taking it.

He also told me that his company is a very good and successful company because he follows his design process and he is always kind to his employees.







Design Process

The purpose of a design process is to help you with improving the project you're working on.

During the Full Volume VEX season we used the VEX design cycle to build a functioning robot that could complete the challenge.

When investigating igrab I modified the VEX design cycle that fit both the igrab business model and our VEX IQ design process. Our modified design process looks at 4 key steps; identify, analyse, test and feedback. The reason I styled it like snakes and ladders is because the ladder goes up and a snakes goes down. The design process goes up to the top and back down restarting the process.





To identify is to understand the problem and brainstorm solutions.



The igrab team need to identify who their customers are and what they will need to build their dream kitchen. By providing choices customers can determine style, compare products and make a suitable choice.



Architectural collection (36)

Kitchen knobs

(27)



Black Handles Collection (32)



Lip pull Collection (17)





During our experience in VEX we started by identifying the needs of this years 'Full Volume' competition. The needs were scoring more blocks of the same colour and collecting blocks from around the field. We then started researching on the internet and watching videos of robots.





STEP 2: Analyse

To analyse is to review the identified problems and work on developing the best solution.



They analyse the websites purchase history and data to determine the most popular demands. Before the items are uploaded to the website they will first be ordered from the factory. If a product is not successful it is put on sale and then discontinued.





Once we have researched (YouTube) and brainstormed our ideas we analysed all the possible solutions and determine the best robot idea by drawing out our plans. We then start building our robot, making modifications.



STEP 3: TOST To test is to determine if the solution has been successful.



When purchasing new products igrab first <u>test</u> to see if products are required by getting smaller quantities and upload them to their website. This is so they can see if the product is a good seller or not before they buy more stock.

We did alot of testing to check if the robot design is successful and make improvements. We did this by practicing our skills and taking our robot to competitions. We often would test our robot and have to go back to the analysing stage of the design process.



Testing our robot at school

STEP 4: FOODBACK Feedback is to review the solution and see if any modifications are needed.



The igrab team need to determine <u>feedback</u> by seeing if their customers are continuing to buy their products by checking the sales, collecting data tell them if a product is making profit or loss. They also check their reviews to see if the customers are satisfied.

Reviews ★ 4.8

3,714 total

5-star	91%
4-star	6%
3-star •	1%
2-star	<1%
1-star ●	1%

\star \star \star \star \star \star \oslash Verified

MamaK, 21 January

Great quality handles

Great quality handles. Purchased several time now.

Always happy with prompt delivery and handles look great on drawers and kitchen cabinets.

\star \star \star \star \star \bigstar \oslash Verified

David Hill, 21 January

Highly recommended

Great range, fast delivery and excellent customer service



We collected <u>feedback</u> by comparing our robot to other competitors robot when we go to competitions. We are also lucky that we can get feedback from the other Trinity teams face-to-face.

Career Ready

VEX Robotics is helping prepare us for our future careers by:

- 1. **Technology** learning more about coding. We can see that the future is very technologically advanced and VEX is helping us learn the skills we will need for our jobs.
- 2. **Collaborating** we have become better at communicating ideas and working together on tasks. In the future we might need to work on projects with a team. VEX is making us much better at understanding others.
- 3. **Building** learning how to be engineer, designing and making our own ideas testing to see if they work. VEX has helped us by getting us ready for a future in engineering.
- 4. **Driving** learning to to drive a robot is helping us to prepare for when we are learning to drive a car. We understand the forces and velocities required to make turns and drive in a straight line. VEX is helping us because our future careers may require us to drive to work.

Sources

https://vrc-kb.recf.org/hc/en-us/articles/9628278280215-VRC-Engineering-Design-Process - VEX design cycle

https://content.vexrobotics.com/resources/VEXIQ-SG-Rev2.pdf - VEX logo

https://www.igrab.com.au/ - igrab website (all images found on igrab website)