

# THINK LIKE A GIRL

EVERYTHING YOU NEED TO KNOW  
ABOUT HOW 3747B CAN TO BE





# Introduction

An all-girl school located in Miami. A slowly expanding engineering program. A group of three girls with something to prove. This Vex team knows that it won't be easy. They're participating in a largely male-dominated field in a school which mostly places emphasis on other events, such as sports and debate programs. But they are determined to show their school, the Vex program and themselves that anything is possible with hard work, ambition and determination. And having a little fun along the way wouldn't hurt either.



# Chapter 1

## The Beginning

Valeria and Maddie were discussing robotics one fall afternoon. Valeria had participated in Vex before and although Maddie had never competed in Vex Competitions, she was familiar with Vex robotics from years previous and had been a part of other engineering programs. Maddie was a great artist, and Valeria enjoyed using her hands to build the robot. But there was something missing. The engineering notebook was neglected several times and although both Maddie and Valeria knew something had to be done about it, they struggled in filling it up. They knew that they had to do something fast if they wanted to have a chance at the competitions. Lucky for them, somebody came just in time.



# Chapter 2

## An Old Friend

Sophia was with Ms. Chu, the head of Vex Robotics, to discuss the possibility of being in a Vex Robotics team. She had just finished talking to a girl who was initially going to be on her team but had to quit due to excess work. Sophia had been in Vex robotics teams before in middle school, the same year as Valeria, and so the both had known each other. And Valeria and Maddie's team was struggling to get the robot ready for the competitions. So Ms. Chu told to Sophia to ask Valeria about the possibility of joining her team. The next day, which coincidentally fell on the very first Society of Women Engineers meeting at Carrollton, Sophia asked Valeria if she could join hers and Maddie's team. Valeria was excited about the prospect of having a new member, but when Sophia casually mentioned her love of organizing the engineering notebook, it felt too good to be true, almost like fate. Valeria quickly told Maddie the good news and they eagerly added Sophia to their team.



# Chapter 3

## Work to be Done

Sophia looked through the engineering notebook with disbelief. There were only two entries done, the rest were just titles and dates. Maddie continuously struggled building the towers correctly, as many small pieces were needed to put it together. Valeria continued making prototypes of claw structures and lifting mechanisms, but none seemed to work with the desired results. Sophia, Maddie and Valeria knew that they wouldn't be able to finish in time for the next month, let alone the next competition.

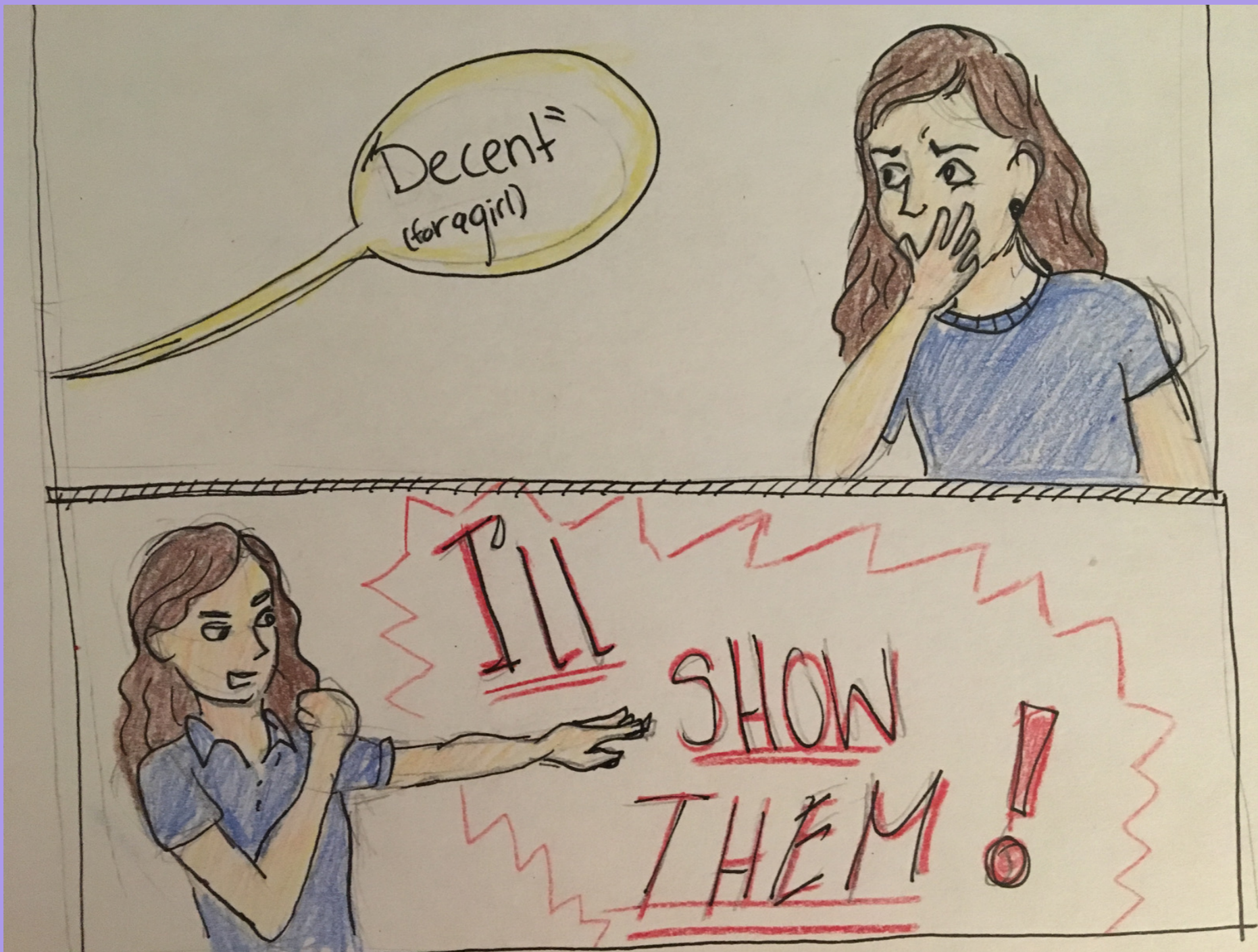


To make matters worse, Valeria couldn't figure out how to add the scissor lift to the towers and had taken them apart in order to figure it out. Yet, she was still unable to achieve adding the scissor lift and couldn't even figure out how to put the towers that Maddie had worked so hard on, back together. It was a major step backwards just a week shy of the competition. The team knew that they would yet again have to miss another competition.

The next competition was a month away, and the team was determined to have the robot ready by then. It was December after all, and the team knew with certainty that they could get the robot done.

# Chapter 4

## On Her Own



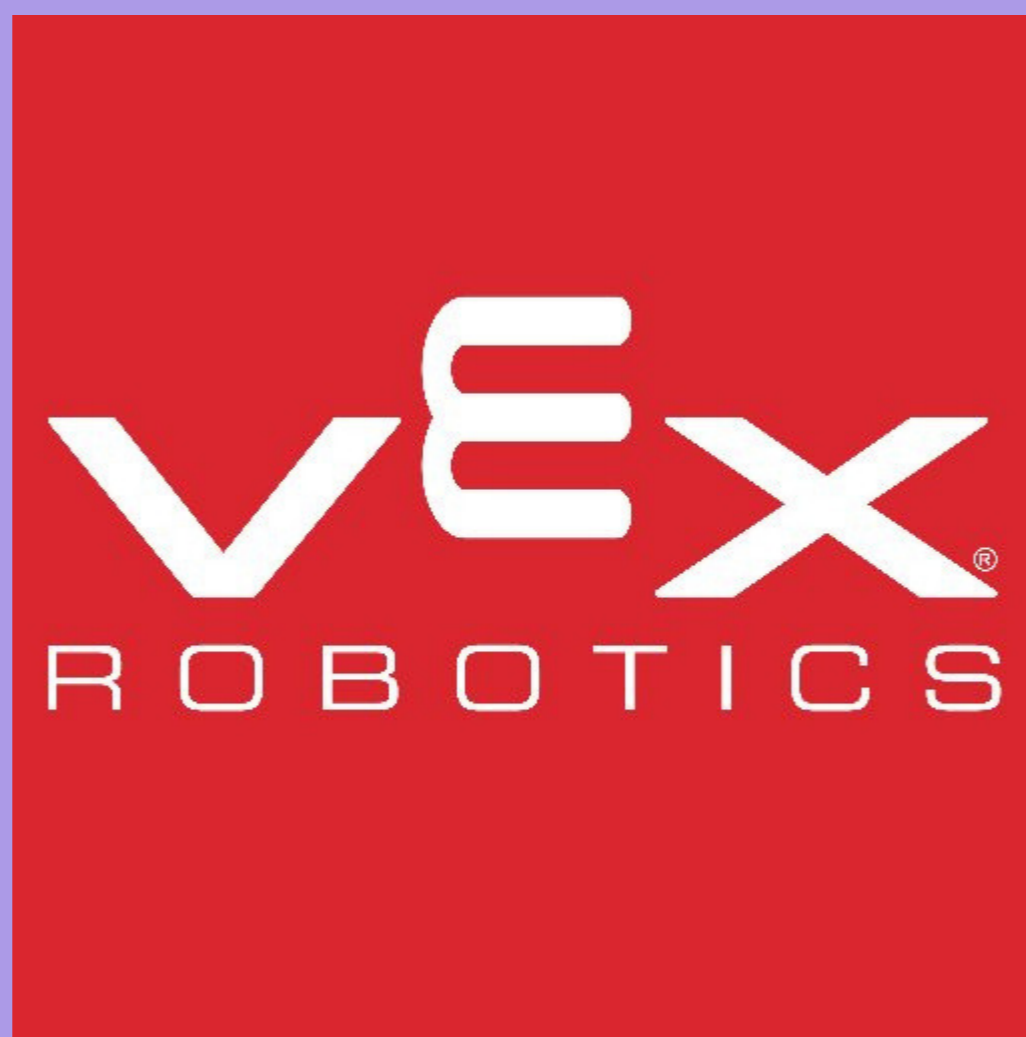
Maddie and Valeria worked hard with Sophia to get the robot done. Because of their various academic and extracurricular activities, neither Maddie nor Valeria would be present at the competitions. That meant that Sophia would have to compete alone, and Maddie and Valeria did their best to help her the days leading up to the competition. On the day of the competition, Sophia checked the robot in and set up her table. Ms. Chu went to the other team and tried to get a girl or two to join Sophia during the competition. Two ninth-graders, Sabine and Isabella, stepped up to the plate and competed with Sophia. The first match was a disaster. The robot wasn't working after the autonomous didn't work and there was very little that could be done. The robot was fixed and brought for the next match. After that, there was more success. One game, after overhearing their alliance calling their robot "decent", Sophia felt a sudden need to prove herself. When the competition started, she began scoring as many points as she could, especially since the alliance's robot had broken down. But as the final game was taking place, an all-boys team robot from the other alliance knocked over 3747B robot and, unable to get the robot back up, they lost the competition. They placed 19th out of 51 robots, yet they were not picked for an alliance and were unable to advance. Still they were happy with how they did and, as Sophia relayed the information to Maddie and Valeria. Afterwards Maddie and Valeria, out of thanks and from the approval of Sophia, repaid Sabine and Isabella for their efforts in helping 3747B.

# Chapter 5

## Hope for the Future

Although the competition didn't bring as much success to 3747B as they would have hoped, the team members were as hopeful as ever. Their partner team, 3747C, had won the

Design Award, a spot at the state competition, and had attained their own Vex field. Even outside of Vex robotics there were more opportunities being offered at their school that year. There was a new IB Design and Engineering classes offered in the high school and the very first Carrollton chapter of the Society of Women Engineers had begun in efforts to expand engineering interest in their school.



The possibility of solar powered go carts was also within reach as well as other robotics and engineering programs.

And although there was still a long way to go, all the new opportunities offered in their school gave 3747B hope in their Vex program, their school, and themselves.



THINK LIKE A GIRL

TEAM 3747B

- SOPHIA BACHAS-DAUNERT •
- VALERIA LOPEZ-TRUJILLO •
- MADDIE SALMAN •

Girl  Powered

online  
CHALLENGES

