

**Career Readiness**

**8975B**

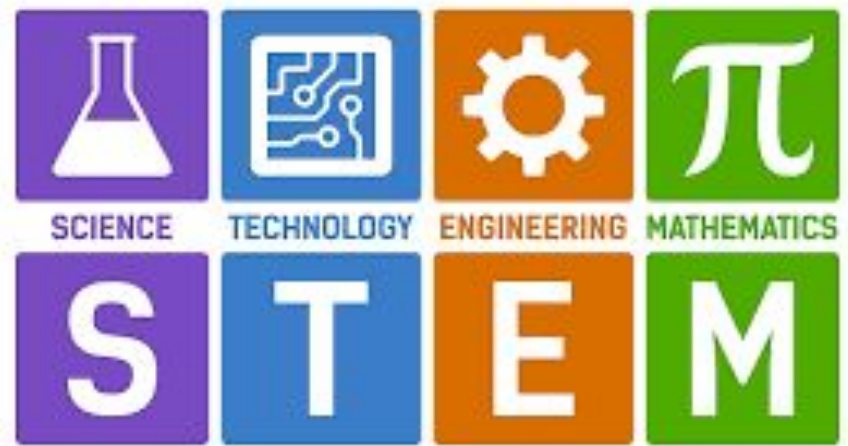
# Introduction

As a 7th grade student part of VEX robotics, many of the skills I'm currently developing will go on to contribute to my future career. The world around us is changing, and many of our modern careers are beginning to incorporate STEM skills in order to be in the workplace. For me, I hope to be a programmer at the company of Nintendo to help make video games to bring enjoyment to people the same way Nintendo brings enjoyment to me. So how does VEX robotics help me develop these skills needed for the career? Well, VEX robotics help me develop STEM skills, helps me learn how to communicate with my team members, and teaches me the process of trial and error.



**STEM SKILLS**

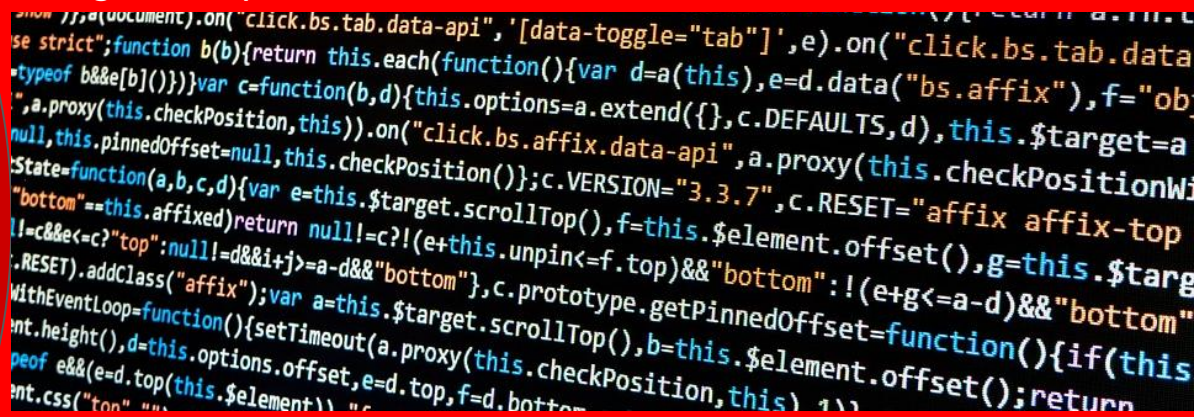
STEM skills are an important part of my education as a 7th grade student. STEM teaches me problem solving, critical thinking, creativity, curiosity, logical mathematical skills, and engineering-design skills. STEM skills are great for building skills towards becoming a programmer for Nintendo or any engineering career, as it requires all those skills. When you run into a problem with the code, you must use all of your problem solving skills. When writing code, you need to use critical thinking skills to think about what will happen when the code is ran. Creativity is also an important skill when programming as there are times where one thing won't work the way intended, and so you'll have to be creative with how you do so. Curiosity is a skill needed for testing different things when programming, as you might discover something new that makes programming easier. Logical mathematical skills are required as you must be precise with a lot of commands. Finally, engineering-design skills are essential as you will need to analyze the program multiple times to make sure everything will work right. Along with Stem skills, I also learn communication skills.





**Communication  
SKILLS**

When engineering in general, a large part of those skills require communication skills. Whether one of the motors aren't working right, the wheels have a drift, or there's an error in the code, we must always communicate with each other so we can work together and understand what the problem might be. For example, when I write the code it is important that I write out the program that my teammates envision. While I can write my own path, it's crucial that I take recommendations from my teammates since they can give me ideas and let me know what they want me to do in order to make a perfect program. When programming video games, you must program according to the vision that your teammate shares due to the wishes the lead would like you to fulfil. One example is that the lead may want you to make a program such as, "When {Sprite 1} interacts with {Sprite 2} spin for 3 seconds". This is also the same with programming our VEX bot because one teammate might want the bot to take a certain route so it scores the desired amount of points. Additionally, VEX robotics teaches us how to be specific when communicating, which is also an important skill in programming. Whether our builder requires a certain part, or there must be a certain degree turn to be made, it's always crucial that we be specific. If we aren't specific, many problems can arise such as the wrong screwdriver being used, the wrong turn being made during a program, or a mistake made when designing the bot. We can also run into these same problems when programming games. Some examples, include the wrong functions being implemented, many glitches, and errors in the strings of code. On that topic, engineering can help teach us from our mistakes.



```
...),a(document).on("click.bs.tab.data-api",[data-toggle="tab"],e).on("click.bs.tab.data-  
se strict";function b(b){return this.each(function(){var d=a(this),e=d.data("bs.affix"),f="ob-  
typeof b&&e[b]()});var c=function(b,d){this.options=a.extend({},c.DEFAULTS,d),this.$target=a-  
",a.proxy(this.checkPosition,this)).on("click.bs.affix.data-api",a.proxy(this.checkPositionW-  
null,this.pinnedOffset=null,this.checkPosition());c.VERSION="3.3.7",c.RESET="affix affix-top-  
State=function(a,b,c,d){var e=this.$target.scrollTop(),f=this.$element.offset(),g=this.$targ-  
"bottom"==this.affixed)return null!=c?(e+this.unpin<=f.top)&&"bottom":!(e+g<=a-d)&&"bottom"  
!=c&&e<c?"top":null!=d&&i+j>=a-d&&"bottom"},c.prototype.getPinnedOffset=function(){if(this  
.RESET).addClass("affix");var a=this.$target.scrollTop(),b=this.$element.offset();return  
withEventLoop=function(){setTimeout(a.proxy(this.checkPosition,this),1)};return  
nt.height(),d=this.options.offset,e=d.top,f=d.bottom  
peof e&&(e-d.top(this.$element))<c  
nt.css("top","")
```

Fun fact:  
Many of  
Nintendo's  
games are  
programmed  
with C++

Fun fact:  
Nintendo's first  
console, the NES  
or Famicom, was  
programmed  
with 6052  
assembly  
language.

A big part of engineering and programming is mistakes. So what can we do to be better? The answer's simple. We learn from our mistakes. While mistakes slow down our progress, it provides an opportunity to learn from them and can make us even better. For example, when the program for the bot is written, there's a chance that the bot may not turn around enough degrees. This can be a bad thing since the whole path the bot's supposed to follow can be thrown off. However, by this mistake occurring we can prevent the same mistake from happening by making adjustments to the amount of degrees turned. The same can be said for almost any career in engineering as well. You will always need to make adjustments and changes for when things don't go as planned, because if anything can go wrong, it will. Additionally, we can use mistakes as a chance to analyze our failures and innovate off of them!



Fun fact: When the Leaning Tower of Pisa was under construction in the 12th century, it began to tilt due to the soft ground it was on, which couldn't properly support the structure's weight. By 1990, the tilt had reached 5.5 degrees.

# Conclusion

As you can see, VEX teaches us many skills needed for engineering. Whether you're a programmer for nintendo, an aerospace engineer, or even an architect, VEX helps teach us the things we need to know. In VEX, we learn lots of different STEM skills, communication skills, and we learn how to grow and prosper from our mistakes.

