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Robotics Game

Welcome to Tower Defense, an interesting, simple, yet complicated game. In Tower Defense, you use VEX robotics parts from past years (as shown in our video) to try to stack towers. Whoever stacks the tower the highest, fastest, or in a variety of different ways wins! There are two different modes: solo, or against an opponent. Sometimes you have a blueprint on what type of tower to build. Other times you compete with other people to see who can build the highest tower. Tower Defense would be most fun for kids from 3rd-8th grade. It teaches kids physics and how to balance things. It would be beneficial for kids of this age group to learn these skills. A 5th grade teacher could use this game to teach their students balance since it is one of the science standards for that age group. If they learn stuff like balance and physics early on, they won't have to learn some of the simple mechanics of these later on. They can use this extra time in their lives to learn other subjects and work on other things. As noted previously, there are two modes: solo towers and double, more competitive towers. Solos would be with a single person building a tower with a blueprint, or building a "free tower" to see how tall they could get with a certain amount of pieces or in a certain amount of time. On the other hand, doubles would be 1 person vs another person to see who could build the highest in a certain amount of time or who could build a blueprint the fastest. If there are enough players playing the game, there will be a chart/scoreboard set up that would show the stacking high score for both solo and duo

towers, as shown below:

1's	2's	
3.7 sec, 3/28/21	3.7 sec vs 4.2 sec, 3/29/21	
3.9 sec, 4/1/21	3.9 sec vs 4.1 sec, 3.28/21	
6.8 sec, 3/28/21	6.8 sec vs 7.3 sec, 3/30/21	

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 All in all, the new game, dubbed "Tower Defense ", is an exciting, new game where you can

stack towers up using old VEX game parts, and let your students compete against each other in a

battle of physics and balance knowledge.

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❏ Here are some of the materials needed to play Tower Defense:

❏ Old game parts such as:

❏ A cube

❏ A ball

❏ A stacking platform

❏ A cone

❏ Also you need materials such as:

❏ A sturdy table

❏ Two people

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Also, here are the original ideas for our game, tower defense, and other ideas as well:

Ideas:
~Use the old game pieces to make an obstacle course for your robot to go through
~Use the old game pieces to make a timed challenge in which your robot has to deliver different game pieces from past years to different locations. The fastest time wins!
~Use the old game pieces to make some sort of structure. In this game your robot has to pick up the pieces and stack them on top of each other. The highest tower wins!
~Use the old game pieces to make a sort of contraption that delivers pieces to your robot, and the most pieces in the point zone(where the pieces need to be moved) after 2 minutes wins!

Now, here are those ideas, ordered from best to worst in my opinion:
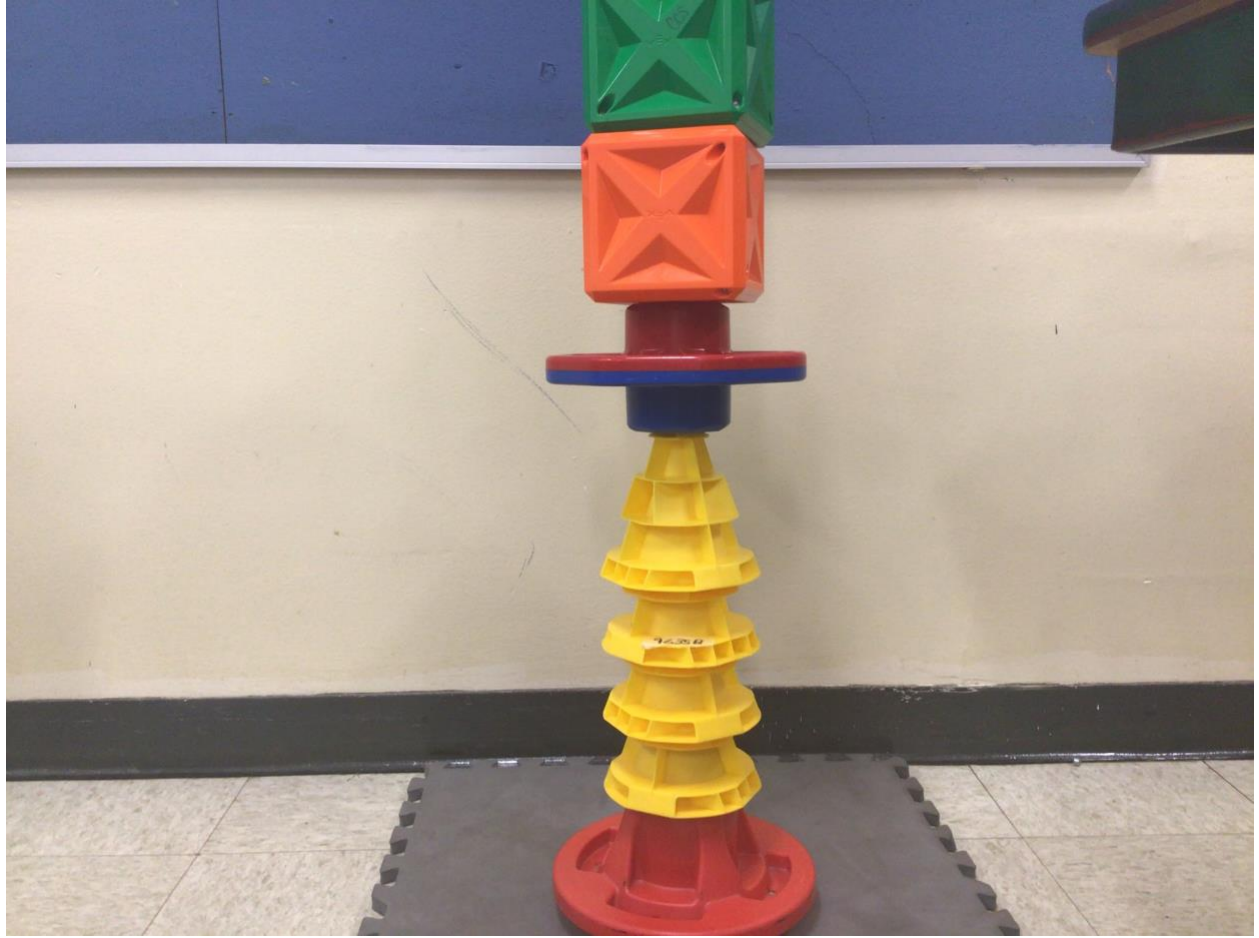1. Idea 2
2. Idea 3
3. Idea 1
4. Idea 4

My idea for idea 2 is that it could have your robots run the course through autonomous. The same could be said for idea 1, and it would be quite interesting for idea 3.

Here are some blueprints of what you could build

This is the process in which a match occurs:

1. It is decided whether the match will be a 1v1 or a 2v2.

2. A tower build is randomly selected for both teams to build.

3. There is a 5 second countdown timer before the match begins.

4. Have fun playing tower defense!