

4th Grade My Robot



The Problem:

These day's there are robots that can do almost anything. Robots have been invented to solve problems and make our lives easier. Have you ever thought about designing your own robot to solve a problem or help with a chore?

The Challenge:

You are going to design and create a robot using Tinkercad. Your robot must be built and have the parts for the specific purpose that you want your robot to do. Your robot will need to have structural integrity and fit to the designated measurements.

Criteria and Constraints:

- #1-Your 2-D blueprint design must contain labels and measurements
- #2-Your robot must have structural integrity
- #3-The total <u>length</u> of your robot from the top of its head to the bottom of its feet must be no longer than **5**½ inches
- #4-The total width of your robot must be no wider than 4 inches
- #5-The depth of yur robot must be 1/2 inch
- #6-You will create your 3-D robot using Tinkercad

Steps to Follow:

#1-Using Google Docs, list what you want your robot to do and what parts it will need #2-Create a 2-D blueprint of your robot on grid paper.

A-Label the parts

-head -arms -legs -special parts

-body -hands -feet

B-Put in the dimensions of each part mentioned above

-length -width -depth

#3-Get the blueprint approved by Mrs. Spraggins

#4-Create your robot using Tinkercad

"Create New Design"

-make sure your dimensions match your blueprint (click on "settings" and change

"units" to "inches") (Custom length "6.0" and width "6.0")

#5-Save your design to Google Drive

-First Name, Last Inital-teacher

"Sandie, S-Spraggins"

#6-Share with Mrs. Spraggins