

Robots in Action

Criterion C - Creating the Solution

Students plan the steps to create the solution based on the best idea, build the solution while documenting the process, and justify any modifications to the plan.



C.0 - Creating the Solution (Warm Up)

Finalize the name, purpose, and best pencil sketch of your robot.

C.0.1 - Name of Robot

What is the final name of your robot?

C.0.2 - Purpose of Robot

What is the purpose/function of your robot? Review the design specification in *Strand B.2.1, Function - General Performance*, from your *Criterion B - Developing Ideas* document.

C.0.3 - Robot Isometric View (3D)

Insert a photo of the 3D sketch of your robot from *Strand B.4.4* in your *Criterion B - Developing Ideas* document.



C.1 - Construct a Logical Plan

Outline a plan which considers the use of resources and time sufficient for peers to be able to follow to create the solution.

C.1.1 - Plan to Build Your Robot Prototype

Briefly describe in a paragraph how you will build your robot prototype in Tinkercad.

Include:

- the [basic shapes](#) you plan to use
- if you will make holes (or not) in the process
- if you will copy-paste-mirror to make arm or leg pairs
- use any special shapes, such as [characters or connectors](#)

>> Pause... Build your Robot Prototype in Tinkercad. <<

C.1.2 - Your TinkerCAD Robot (3D View)

Insert a descriptive 3D screenshot of your final TinkerCAD robot. [Click a corner of the navigation cube](#) to help find the best 3D view.

>> Pause... Build your Robot Presentation. <<

C.2 - Demonstrate Excellent Technical Skills

Demonstrate excellent technical skills when making the solution.

C.2.1 - Final Presentation - Effective Visual Design

Which slide in your presentation best follows the [C.R.A.P. Model for design](#)?

Insert a Screenshot.	
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Explain in 2 to 4 sentences how this slide best uses <u>C</u> ontrast, <u>R</u> epetition, <u>A</u> lignment, or <u>P</u> roximity.	
C.2.2 - Final Robot Prototype How did you use Tinkercad's basic shapes to make your robot appear humanoid?	
Insert 1 to 3 Screenshots.	
Explain in 2 to 4 sentences how you used Tinkercad's basic shapes to make your robot appear humanoid.	

C.3 - Follow the Plan to Create the Solution

Follow the plan to create the solution, which functions as intended and is presented appropriately.

Robot Presentation Link

Insert a [link that anyone can view](#) of your Google Slides Robot Presentation.

C.4 - Justify Changes Made to the Plan

Understand the importance of monitoring progress and fully justify changes made to the chosen design and plan when making the solution.

Robot Prototype - Changes From Plan to Product

What changed between what you planned in *Strand C.1.1* above and what you made in Tinkercad? Focus on the most significant changes if you have a lot. Be picky if you need help finding differences. Explain in 2 to 4 sentences.



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