

Biomechanical Cyborg Design Brief - For Students

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Goals/Objectives:

Design a biomechanical appendage for a **real life cyborg** based on a character of your choice.

Cyborg is short for "cybernetic organism", which is a being with both organic and biomechatronic body parts. ... While cyborgs are commonly thought of as humans, they might also conceivably be any kind of organism.

Intro - Tempt1 "Getting Up"

[Video](#)

Cyborg Characters (for reference):

- DC Comics' Cyborg
- Marvel Comics' Nebula & Forge
- Alita Battle Angel

[Video](#)

[Video](#)

Real Life Cyborgs (for reference):

- Onyx Ashanti
- Neil Harbisson
- Amber Case

[Video](#)

[Video](#)

[Video](#)

Design Checklist:

Brainstorm

- Create a design concept map for your chosen body part

Develop an explanation for how the cyborg part works that includes

- how it works
- the role of the part (what does it do)

Collect found materials and supplies to make your cyborg part

Create an interactive prototype and presentation for your project, if time allows



Design a Cyborg Body Part Description

This activity is a perfect blend of science and creativity as you work with your partner(s) to create your version of a cyborg part. This part must mimic the workings of a true organic body part, but incorporate some enhancements that would make people want to buy or use it. Think outside of the box on this one, your cyborg part need not be practical but it must be awesome!

Because your cyborg part must copy the way a real body part functions, you will need to become familiar with how your body and brain works together to allow you to do things. Figuring this is where your research should begin.

Brainstorm, Research and Design

- Brainstorm: What do you want your cyborg part to include? How will you enhance the body part to make it better?
- Research: What are the elements of your chosen body part? How does it work? (These are not the only questions; they are just supposed to get you started).
- Design: Draw your body part from different views (front facing and cross section at minimum). Remember that these should be scientific drawings. Create a physical prototype of your cyborg body part. You should be able to manipulate your model to explain how it works.