

Career Connections

Colossal Hand

Interests & Skill Sets

- Intrigued by How things work
- Building and designing mechanical things
- Coding and Programming
- Math & Physics
- Creative Problem Solver
- Tenacious
- Innovative

Jobs

- Biomedical engineer
- Structural engineer
- Mechanical engineer
- Roboticist
- Product designer
- Coding engineer
- Prosthetist/Animal Prosthetist
- Contractor
- Welder

Courses & Degree Programs

- Math
- Physics
- Biomechanics
- Coding & Programming/Computer Science
- Biology
- Zoology
- Mechanical or structural engineering
- Product or industrial design
- Orthotics or Prosthetics
- Biomedical engineering
- 3D printing
- Pre-med, pre-vet
- Coherent optics and holography
- Tissue engineering
- Wearable sensor technology

Writing Prompts

1. Create a science fiction short story that you think could become science fact in your lifetime.
2. Write a description of the biomechanical movement of a joint in your body or describe how a system of your body functions.

Career Connections

Videos & More

- [Biomedical & Industrial Engineering: Crash Course Engineering #6](#)
- [So You Want to Become a Biomedical Engineer](#)
- [The Big Questions of Biomedical Engineering | Sofia Mehmood | TEDxYouth@PWHS](#)
- [Every 6-year-old needs to Learn Bioengineering | Amanda Strawhacker | TEDxYouth@BeaconStreet](#)
- ["Bionic Vet" Makes Prosthetics for Pets](#)
- [3D printing human tissue: where engineering meets biology | Tamer Mohamed | TEDxStanleyPark](#)
- **Games & videos** <https://www.sciencekids.co.nz/engineering.html>
- **Cool Games** <https://tryengineering.org/students/games/>

Activities & Lessons

- [Discover ehttps://www.discovere.org/our-activities](https://www.discovere.org/our-activities)
- [Curricular Unit: Biomedical Engineering and the Human Body](#)

Teach Engineering Middle

- [Prosthetic Party](#)
- [Engineering Bones](#)
- [Artificial Bicep](#)
- [Artificial heart quick design challenge](#)

Teach Engineering Elementary

- [Move Your Muscles](#)
- [Nerve Racking](#)
- [The Heart of the Matter](#)

Teach Engineering HS

- [The Pirates of Prosthetics:](#)
- Tissue Mechanics
- [Heart to Heart](#)

a hologram projector at home

- [How to make a 3D hologram at home](#)
- [How to make a hologram](#)

How to make projector in 2 minutes

Arduino or robotic hands

- <https://create.arduino.cc/projecthub/Gabry295/how-to-make-a-remote-controlled-robotic-hand-with-arduino-32b0f5>
- <https://www.instructables.com/id/DIY-Robotic-Hand-Controlled-by-a-Glove-and-Arduino/>
- https://www.servomagazine.com/magazine/article/august2015_Ohlmus

Further Resources

<https://www.steamsational.com/engineering-activities-for-kids/>

<https://www.asceville.org/activities.html>

<https://thekindergartenconnection.com/awesome-engineering-activities-kids/>