

# Hydraulic Prosthetic Hand




**Science  
Film  
Festival**
 Knowledge  
Through  
Entertainment

## KEY OBJECTIVES

**Build your own hydraulic prosthetic hand**

## INTRODUCTION

Prosthetics may take many forms, but each is intended to restore or enhance the capabilities of a person. These are often mechanical replacements for parts of a person's body that are missing, or poorly functional. These may have arisen through accidents, injury or a result of an irregular development.

These days with more sophisticated manufacturing tools (such as 3D printers) and powerful and flexible microelectronics prosthetics can be created which provide the users with greatly improved function and quality of life.

Sadly not everyone can assess these advanced technologies. But even some basic prosthetics can be designed and produced which can improve people's lives and dignity and ability to care for themselves and their families. Here is a simple activity to get students started in designing and producing simple prosthesis.

### KEYWORDS

**Prosthesis**   **hydraulic**

### LEVEL

**Primary & Secondary School**

### TIME FOR ACTIVITY

**30 min**

## GUIDING QUESTIONS

How can you build your own prosthetic hand?





# Hydraulic Prosthetic Hand



**Science  
Film  
Festival** Knowledge  
Through  
Entertainment

## POSSIBLE EXTENSIONS

**After assembly, discuss how the different grippers work, how might they be activated, controlled, powered. What different designs might be useful. Who might benefit from these. What would you need to make a fully functional version for someone.**

**SOURCES** Presented by **Dr. Stuart Kohlhagen/The Science Nomad**