

# An Engineering and Technology Project

**The Task:** To create a **device or product** to demonstrate a scientific principle, **solve a problem or offer a different approach to a problem.**

## What to do:

- ★ Design/make a prototype.
- ★ Ensure its dimensions are no larger than 76cm in depth, 122cm in width and 1m in height.

## The entry:

- ★ Must satisfy one of the following:
  - ✓ Demonstrate a scientific principle
  - ✓ Solve a problem
  - ✓ Offer a different approach to a problem
  - ✓ Must be accompanied by a scientific notebook telling the audience about the idea and the problem that prompted the design and construction phase.

Shoes with their own lights to see when walking in the dark.



Many students are aware of the **ENGINEERING DESIGN PROCESS** from STEM lessons.

- ★ Identify the problem
- ★ Brainstorm- What ideas do you have? What's the best solution?
- ★ Design it- How can I plan and draw these ideas?
- ★ Create it- Get to work!
- ★ Test it- What works well? What doesn't?
- ★ Collect data about how well it does its job.
- ★ Improve it- What changes do you need to make?

**Hint:** Take lots of photos during the process to share in your journal



These projects are eligible for entry into the BHP Billiton Science & Engineering student awards through the state QLD Science competition.