

**Hint:** Use this space to show your **Final Design**. You should draw a large coloured pencil sketch of your final idea and write lots of notes to explain how your design uses sensors and what kind of sensors they are.

**Hint:**  
When you've completed your design work you might like to make a **Small Model** to help show off your product. You can use any suitable materials to make your model. Be Inventive!

If you can, attach a photo of your model to this design sheet.

Name: \_\_\_\_\_  
Form: \_\_\_\_\_

School: \_\_\_\_\_

Teacher: \_\_\_\_\_

## The BAE SYSTEMS Schools Challenge 2012

*“Using some kind of communications or sensing technology, design an invention that could save you time and effort in the home. It could be a piece of furniture or other household object.”*

**BELOW ARE SOME EXAMPLES OF SENSORS YOU MAY ALREADY KNOW OF**



### **Hint:**

Use this space to show your **Research** and **Initial ideas**. Draw coloured pencil sketches of a least 4 ideas, refer to how sensors would be used in your design and write lots of notes to explain your ideas.

### **Hints and Tips**

Ideas for any piece of furniture or household object are acceptable e.g. bed, wardrobe, kitchen sink, cooker, clock, stool.....in fact anything that you might find in your home.

There are lots of things to think about and you should consider the following issues when developing your ideas:

- Strength** – your product needs to be strong enough to do its job.
- Weight** – it needs to be easily moved around your home.
- Colour** – it needs to look good
- Comfort** – It needs to be comfortable to use.
- Human friendliness** – It has to be a suitable size so it can be easily used.
- Cost** – It should be affordable
- **Construction** – How does your product fit together?
- Materials** – Use natural or high tech materials, its up to you.
- Safety** – It must be safe to use.
- Planet Friendly** – It should use sustainable materials and manufacturing processes.
- Recycling** – What would you do with your product when its worn out?

To compete in this years BAE SYSTEMS Schools Challenge you must complete both sides of the design sheet.

You might also like to make a small model of your final design. This can be made from any materials you have to hand at home. Fabric, card, paper or papier mache would all be suitable choices.

There is a special prize for the best idea. There are 3 competitions this year, so if you are not successful in the Spring term, why not submit another idea in the Summer or Autumn terms?