



## Sensor City Resource Cards

### Sensors – (Nano-units)

Nano-units are in the process of development. They are “smart” materials that are built atom by atom to have special properties. They can change when exposed to light or heat, and so can work as a sensor.

### Cameras

If technology progresses, it might be possible to construct cameras that are so small they cannot be seen with the human eye.

### Microphones

If technology progresses, it might be possible to construct microphones that are so small they cannot be seen with the human eye.

### Computer Technology

Nanotechnology has already made it possible for computers to become smaller, faster and have more memory.

### Materials

Research into nanomaterials says that it may be possible to create materials that have very interesting properties, such as being very light, very strong, stain resistant, or able to change colour.



## Splash Resource Cards

We would like to do a research project to create new **uniforms** for the world's military and armed forces. Building on earlier research, we would like to experiment to find light, breathable materials that would allow certain materials in (fresh air, for example) and keep other materials out (dangerous particles or powders). We could also experiment with making uniforms, especially helmets, lighter and more comfortable to wear.

Requested Amount: £11,000.00

We would like to do a research project on making nanomaterials that can **clean water**. Building on previous research, we would like to look into creating membranes that are able to treat organic waste in water, as well as to distribute these in a safe way to places in the world that do not currently have access to clean water. There is a danger of making the environment worse than it is, but there is also a possibility of saving many lives with clean drinking water.

Requested Amount: £115,000.00

We would like to do a research project on building a **watch library**. This would involve researching the electrical possibilities of nanotechnology in order to have a device with the most memory available possible. Customers would then be able to download as many songs, games and movies they would like and store them in their watch. The watch would be able to store more than any computer we have today!

Requested Amount: £35,000.00

We would like to do a research project on **drug delivery**. In our project we will find new ways of delivering drugs directly to the right part of the body, building on the research that has already been done in this area. We want to see if we can not only get drugs to the right area, but to the right molecules in the body. This will help many people with diseases, as there will be less side effects. It will also save money, as a less amount of drugs will need to be used.

Requested amount: £99,000.00



We would like to do a research project on **nanoparticles in fuel**. We would like to build on current research about adding a particle called ceria to diesel fuel. This will be better for the environment and petrol customers, as the particle will reduce how much fuel degrades as you drive.

Requested amount: £45,000

We would like to do a research project on building a **nano diamond factory**. We believe that soon we will be able to build something from molecules and atoms, and we would like to do some experiments to see if it possible to build diamonds on our desktop. We need some money to start, and if it works we might be able to sell the diamonds to fund our own research one day.

Requested Amount: £64,000.00

We would like to do a research project creating **TV trousers**. We would like to see if it is possible to create television parts with nano-sized circuits that could be embedded into the material of trousers. This way, whenever a customer was sitting on a train or bus they would be able to watch television. We don't know what kind of health risks go along with having a TV inside a person's trousers, but we don't think it could be that bad.

Requested Amount: £64,000

We would like to do a research project on **artificial limbs** created to order from bio-compatible materials. Building on earlier research, we would like to experiment with nano-materials to create replacement body parts that would hopefully not face rejection by the rest of the body.

Amount requested: £20,000.00



**Splash the Cash!**

Fill in the stars with the name of the project and the amount awarded.





**More about Medicine Worksheet**

Website: <http://www2.mdanderson.org/depts/oncolog/articles/03/7-8-julaug/7-8-03-1.html>

What application is the article about? \_\_\_\_\_

Do you think it is positive or negative? \_\_\_\_\_

Is the application fact, future or fiction? \_\_\_\_\_

Website: <http://www.technewsworld.com/story/Edible-Nanotech-on-the-Horizon-41007.html>

What application is the article about? \_\_\_\_\_

Do you think it is positive or negative? \_\_\_\_\_

Is the application fact, future or fiction? \_\_\_\_\_

Website:

[http://www.nst.com.my/Current\\_News/NST/Sunday/Features/20050306084242/Article/indexb\\_html](http://www.nst.com.my/Current_News/NST/Sunday/Features/20050306084242/Article/indexb_html)

What application is the article about? \_\_\_\_\_

Do you think it is positive or negative? \_\_\_\_\_

Is the application fact, future or fiction? \_\_\_\_\_

Website: [http://www.alwayson-network.com/comments.php?id=8626\\_0\\_3\\_0\\_C](http://www.alwayson-network.com/comments.php?id=8626_0_3_0_C)

What application is the article about? \_\_\_\_\_

Do you think it is positive or negative? \_\_\_\_\_

Is the application fact, future or fiction? \_\_\_\_\_



Website: <http://www.thestandard.com.hk/stdn/std/Weekend/GB12Jp10.html>

What application is the article about?

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Do you think it is positive or negative?

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Is the application fact, future or fiction?

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Website: [http://www.guardian.co.uk/uk\\_news/story/0,3604,1380106,00.html](http://www.guardian.co.uk/uk_news/story/0,3604,1380106,00.html)

What application is the article about?

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Do you think it is positive or negative?

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Is the application fact, future or fiction?

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Website: <http://www.drugresearcher.com/news/news-ng.asp?n=58349-nano-enabled-drug>

What application is the article about?

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Do you think it is positive or negative?

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Is the application fact, future or fiction?

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Website: <http://news.nanoapex.com/modules.php?name=News&file=article&sid=5426>

What application is the article about?

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Do you think it is positive or negative?

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Is the application fact, future or fiction?

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