

- Ultra-high definition displays and televisions are now being sold that use quantum dots to produce more vibrant colors while being more energy efficient.
 - Flexible, bendable, foldable, roll able, and stretchable electronics are reaching into various sectors and are being integrated into a variety of products.
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Medical and Healthcare

- Nano medicine diagnosis, drug delivery and tissue engineering are the important uses of the nanotechnology in medicine.
 - Nanomaterials show very high efficiency in destroying cancer cells and are already undergoing clinical trials.
 - Better imaging and diagnostic tools enabled by nanotechnology are paving the way for earlier diagnosis, more individualized treatment options.
 - Nano medicine researchers are looking at ways that nanotechnology can improve vaccines, including vaccine delivery without the use of needles.
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Environmental

- Nanotechnology could help meet the need for affordable, clean drinking water through rapid, low-cost detection and treatment of impurities in water.
 - Nanoparticles are being developed to clean industrial water pollutants in ground water through chemical reactions that render the pollutants harmless. This process would cost less than methods that require pumping the water out of the ground for treatment.
 - Researchers have developed a Nano fabric "paper towel" woven from tiny wires of potassium manganese oxide that can absorb 20 times its weight in oil for cleanup applications.
 - Many airplane cabin and other types of air filters are nanotechnology-based filters that allow "mechanical filtration," in which the fiber material creates nanoscale pores that trap particles larger than the size of the pore.
 - Nanotechnology-enabled sensors and solutions are now able to detect and identify chemical or biological agents in the air and soil with much higher sensitivity than ever before.
 - Another sensor has been developed by NASA as a smartphone extension that firefighters can use to monitor air quality around fires.
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Transportation

- Nanotechnology offers the promise of developing multifunctional materials that will contribute to building and maintaining lighter, safer, smarter, and more efficient vehicles, aircraft, spacecraft, and ships.
- In addition, nanotechnology offers various means to improve the transportation infrastructure, Nano-engineered materials in automotive products include polymer nanocomposites structural parts; high-power rechargeable battery systems; thermoelectric materials for temperature control; lower rolling-resistance tires; high-efficiency/low-cost sensors and electronics; thin-film smart solar panels; and fuel additives and improved catalytic converters for cleaner exhaust and extended range.
- Nano-engineering of aluminum, steel, asphalt, concrete and other cementitious materials, and their recycled forms offers great promise in terms of improving the performance and longevity of highway and transportation infrastructure components while reducing their life cycle cost
- Catalysis, Nano-filtration are its uses in chemistry.