

# **NANO ENDOSCOPIC PILL**

This paper introduce about the visualize and diagnose conditions in the gastrointestinal tract,particularly areas that are challenging to reach with traditional endoscopic procedure

# NANO ENDOSCOPIC PILL

## Abstract

Technology's primary aim is to facilitate mass production, delivering high-quality products at lower costs. Current technologies have made significant progress in this regard, but the future of manufacturing is poised to take place at the molecular level. Research in this direction began in the 1980s, initially met with skepticism, but the advent of nanotechnology has brought us closer to this vision. A notable achievement of nanotechnology is the NANO ENDOSCOPIC PILL, a ground breaking medical device for treating conditions like cancer, ulcers, and anemia. This tiny capsule can safely navigate the human body, capturing images of the intestines and transmitting them for computer analysis, revolutionizing the field of digestive system disease diagnosis. While the NANO ENDOSCOPIC PILL is impressive, it has some limitations. However, these shortcomings can potentially be addressed by incorporating grain-sized motors and bi-directional wireless telemetry capsules, further enhancing the capabilities of this medical technology. In summary, the future of molecular-level manufacturing, made possible by nanotechnology, has already led to remarkable advancements in medicine, particularly through the NANO ENDOSCOPIC PILL, offering new possibilities for the non-invasive diagnosis and monitoring of digestive system diseases.

## Introduction

We have made great progress in manufacturing products. Looking back from where we stand now, we started from flint knives and stone tools and reached the stage where we make such tools with more precision than ever. The leap in technology is great but it is not going to stop here. With our present technology we manufacture products by casting, milling, grinding, chipping and the likes. With these technologies we have made more things at a lower cost and greater precision than ever before. In the manufacture of these products we have been arranging atoms in great thundering statistical herds. All of us know manufactured products are made from atoms. The properties of those products depend on how those atoms are arranged. If we rearrange atoms in dirt, water and air we get grass. The next step in manufacturing technology is to manufacture products at molecular level. The technology used to achieve manufacturing at molecular level is "NANOTECHNOLOGY". Nanotechnology is the creation of useful materials, devices and system through manipulation of such miniscule matter (nanometer). Nanotechnology deals with objects measured in nanometers. Nanometer can be visualized as billionth of a meter or millionth of a millimeter or it is 1/80000 width of human hair.

Nanotechnology is the manipulation of matter on an atomic and molecular scale. Generally, nanotechnology works with materials, devices, and other structures with at least one dimension sized from 1 to 100 nanometers.

Nanotechnology may be able to create many new materials and devices with a vast range of applications, such as in medicine, electronics, biomaterials and energy production. On the other hand, nanotechnology raises many of the same issues as any new technology, including concerns about the toxicity and environmental impact of nanomaterials, and their potential effects on global economics.

One of the fascinating application of nanotechnology in the field of medicine is in the form of Capsule camera. Capsule camera has shown to world what wonders miniaturization can workout. Capsule camera is a recent invention in the field of medical science where a capsule can take images inside a person's body. Capsule camera as the name suggests, is a capsule or pill that contains a video camera which is used to diagnose gastrointestinal problems. Imagine a vitamin capsule-sized camera that could travel through your body taking pictures, helping diagnose a problem which doctor previously would have found only through surgery. No longer is such technology the stuff of science fiction films.

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