

Most Complex Machine Ever Built

THE LARGE HADRON COLLIDER

The *Large Hadron Collider* is an enormous 16.8 mile (27 kilometer) circular machine on the border of France and Switzerland. It works by accelerating sub-atomic particles in opposing directions to almost the speed of light and then analyzing the collisions. Its purpose is to help us understand the origin and fundamental structure of the physical world and the relationship between space and time. Physicists also hope to discover some new particles, especially a *Higgs boson*, the hypothetical "god particle."



Particle physics is the unbelievable in pursuit of the unimaginable. To pinpoint the smallest fragments of the universe you have to build the biggest machine in the world. To recreate the first millionths of a second of creation you have to focus energy on an awesome scale.

Graphic from: www.google.com. Quotation from *The Guardian*.
Information paraphrased from: lhc-machine-outreach.web.cern.