Giant atom-smasher set to restart this weekend: CERN

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The Large Hadron Collider is nestled inside a circular tunnel on the Swiss-French border. The European Organisation for Nuclear Research said the world's biggest atom-smasher, which was shut down soon after its inauguration amid technical faults, is set to restart this weekend.

The world's biggest atom-smasher, which was shut down soon after its inauguration amid technical faults, is set to restart this weekend, the European Organisation for Nuclear Research said on Friday.

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The first beam of sub-atomic particles are expected to be injected into the Large Hadron Collider "early Saturday morning," CERN spokesman James Gillies told AFP, while adding that the timing was not set in stone.

Nestled inside a 27-km long tunnel straddling the Franco-Swiss border near Geneva, the LHC promises to unlock scientific mysteries about the creation of the Universe and the fundamental nature of matter.

But the machine was shut down just nine days after its inauguration last September following a series of technical faults.

Since then, the LHC's components had been tested to an energy equivalent of five teraelectronvolts at full power.

The maximum output of what is currently the largest functioning collider in the world, at the Fermilab near Chicago in the United States, is one teraelectronvolt.

CERN had said in August that upon its relaunch, the LHC will run at 3.5 teraelectronvolts in order to allow its operators to gain experience of running the machine.

The first data should be collected a few weeks after the first particle beam is fired.

CERN said the partial power level will be kept until "a significant data sample has been gathered" and ramped up thereafter.

Designed to shed light on the origins of the universe, the LHC at CERN took nearly 20 years to complete and cost six billion Swiss francs (3.9 billion euros, 4.9 billion dollars) to build.