a 27-kilometre ring

**Accelerator smashing speeded-up protons together!**

**Large Hadron Collider**

**LHC**

@Geneva, Switzerland

**Where Protons Meet:**

The Collision Point

Colliding protons accelerated to an incredible 99.999999% the speed of light with a powerful 13.6 TeV smash

Produced many particles with the collision energy

**FASER**

**ForwaRd Search ExpeRiment**

**Muon neutrinos from proton collisions**

**Tungsten target (+ emulsion detector)**

Interacting within the tungsten target

Muons from outside are caught by the front detector and filtered out as background.

**Dipole magnets**

**Silicon tracking detectors**

Muons: Produced from neutrino interactions, standing out as our distinct signals!

Observing Muons through the Silicon Detector!

Calorimeter

First-ever observation of neutrinos from a collider like the LHC! Using the highest energy neutrinos ever created by humans, we're diving deep into the nature of neutrinos and might even test physics beyond the standard model (BSM).

LHC-san
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