

CMS DETECTOR

Total weight : 14,000 tonnes
Overall diameter : 15.0 m
Overall length : 28.7 m
Magnetic field : 3.8 T

STEEL RETURN YOKE

12,500 tonnes

SILICON TRACKERS

Pixel ($100 \times 150 \mu\text{m}$) ~124M channels
Microstrips ($80 \times 180 \mu\text{m}$) ~ 200m^2 ~9.6M channels

SUPERCONDUCTING SOLENOID

Niobium titanium coil carrying ~18,000A

MUON CHAMBERS

Barrel: 250 Drift Tube, 480 Resistive Plate Chambers
Endcaps: 540 Cathode Strip, 576 Resistive Plate Chambers

PRESHOWER

Silicon strips ~ 16m^2 ~137,000 channels

FORWARD CALORIMETER

Steel + Quartz fibres ~2,000 Channels

CRYSTAL ELECTROMAGNETIC CALORIMETER (ECAL)

~76,000 scintillating PbWO₄ crystals

HADRON CALORIMETER (HCAL)

Brass + Plastic scintillator ~7,000 channels

