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The ALICE Experiment at CERN

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The ALICE experiment at the Large Hadron Collider (LHC) at CERN will study the properties of the hot, dense nuclear matter created in high energy nuclear collisions in order to improve our understanding of the novel properties of nuclear matter under extreme conditions. ALICE is designed for precision measurements in the high multiplicity environment of heavy-ion collisions. Key aspects of the detector design are presented. The preparation of the detector for measurements in p+p collisions at $\sqrt{s} = 3.5$ TeV and 5 TeV in the first run at the LHC and in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.5$ TeV in 2010 are presented. The physics program for the first few years is discussed. These measurements will improve our understanding of nuclear matter and test our understanding of QCD in novel regimes of the phase diagram of nuclear matter.