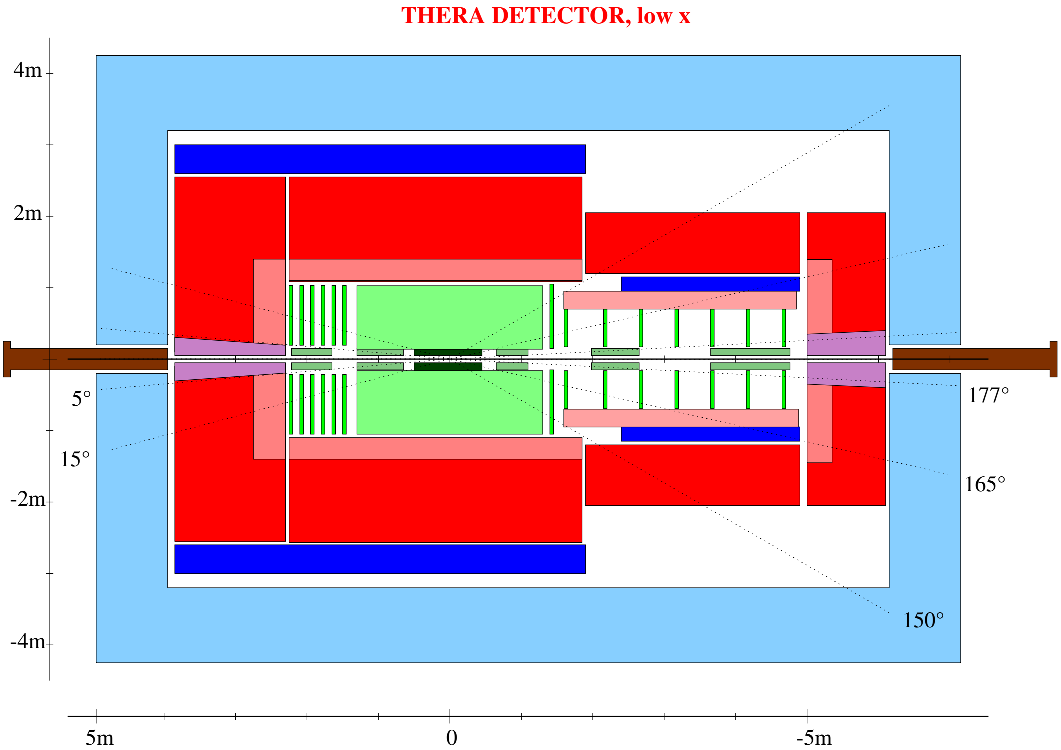
The THERA Detector



Basic design of the THERA detector in the low-x configuration. The electrons enter from left, the protons from right. Around the beam-pipe, modules of 6-inch silicon strip detectors are positioned (dark-green). Tracking is complemented by planar and circular track chambers (light-green). Electromagnetic (pink) and hadronic (red) calorimetry ensures hermetic, accurate reconstruction of the final-state energy depositions. A homogenous, solenoidal field over 9 m length is provided by the large-diameter H1 coil and the smaller ZEUS coil (blue). The return yoke iron structure (light-blue) is instrumented for shower tail catching and muon detection. The focusing magnets (brown) are placed near the plug calorimeters (magenta).
In the high-luminosity phase, the backward detector part and the ZEUS coil will be removed and the iron structure shortened correspondingly. Removal of the large/small angle trackers and the forward/backward plug calorimeters will permit the focusing magnets to be placed much nearer to the interaction point than in the low-x phase.