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Construction of Prototype B for the COMPASS polarized Drell-Yan experiment JAMES MALLON, Abilene Christian University and UIUC, COMPASS COLLABORATION[1] — While there has been significant progress in the past years of understanding the quark and gluon structure of the nucleon, many important questions remain open; in particular, we have only elementary understanding of the origin of the proton spin. The COMPASS project is a fixed-target nuclear physics experiment at CERN which explores the internal structure of the proton, and COMPASS ll's polarized Drell-Yan experiments will be exploring the quark angular momentum contribution to the spin of the proton. As a part of this process, two drift chambers must be constructed to replace older, faulty straw chambers. As a preliminary study, smaller prototype drift chambers were constructed, one in Saclay, France, and the other Prototype B (PTB), at the University of Illinois at Urbana-Champaign. PTB is 16.5" wide, 72" long, and 3.03" tall, with 66 wires across two separate wire planes, and this poster will detail the methods used to fully assemble PTB.

[1]Part of the UIUC group working with COMPASS

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