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Wiring the new COMPASS Drift Chamber[1] LACEY MEDLOCK, Abilene Christian University, COMPASS DC5 TEAM — COMPASS, a fixed-target experiment at CERN, will examine the first ever polarized Drell-Yan events that may illuminate how the quark angular momentum contributes to the spin of the proton. A new drift chamber must be constructed to replace an older straw chamber that is currently in use. In order to construct the drift chamber 4616 gold-plated tungsten wires are used, half are 100 micron (field wires) which provide an electrical field and half are 20 micron (sense wires) which measure position. Because of the difference in wire width, two very different stringing techniques had to be developed. The 20 micron sense wire was too fragile and thin to be handled in the same manner as the 100 micron field wire, so different tools had to be used in order to ensure the stability and efficacy of the chamber. Additionally, different soldering techniques had to be used for the two different types of wires to guarantee both that the field wires did not slip out of their solder joints during the process of stringing the sense wires and that both types of wires had smooth, even solder joints that would not require repair. This poster will detail several aspects of wire stringing, including how to string different widths of wire and how to overcome difficulties arising from using two different types of wire during the stringing process.

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