

E907 Drift Chamber Report

MIPP Collaboration Meeting

9 August, 2003

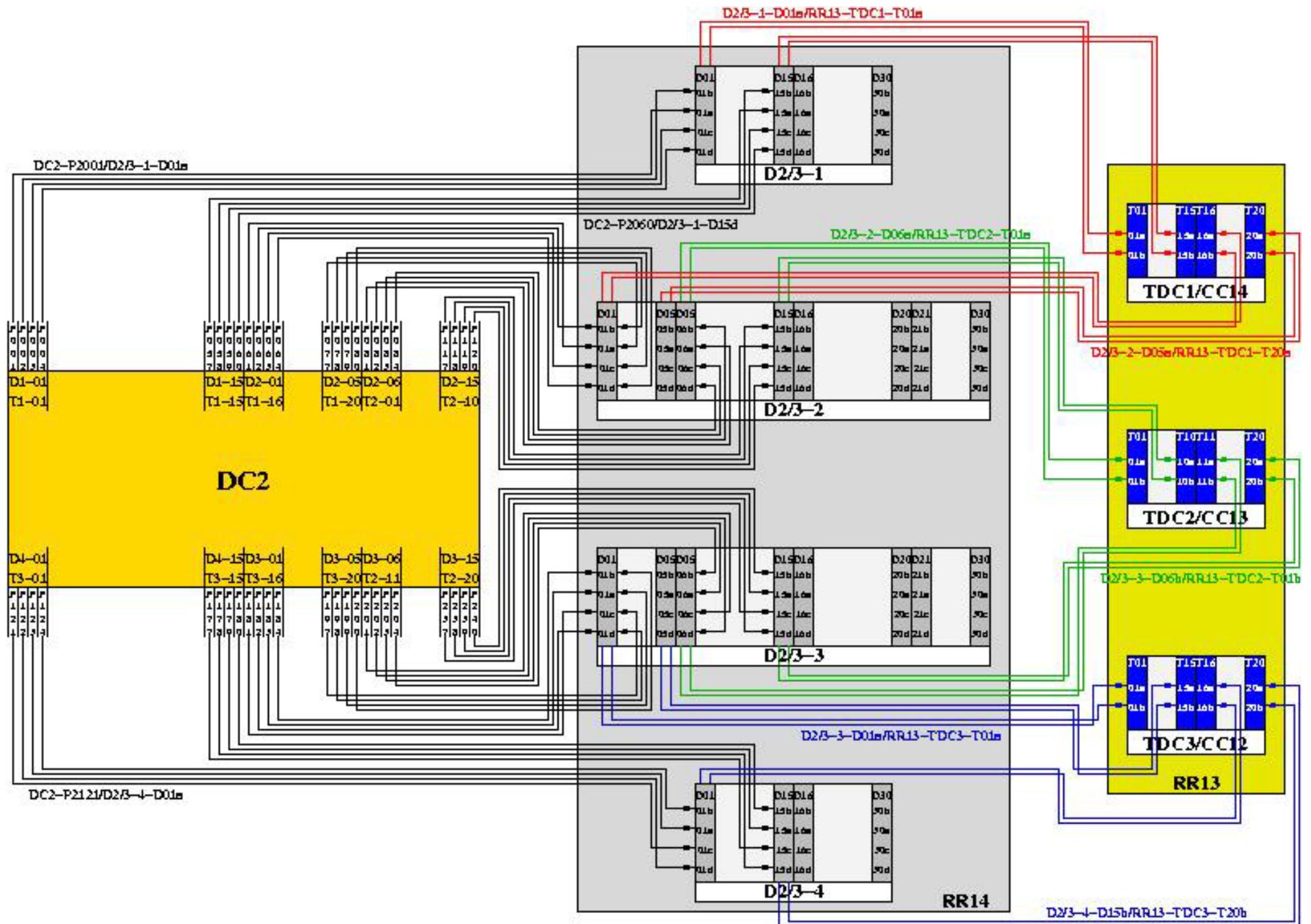
Installation Status

•Installation

- DC4, DC2, DC1, BC2 (in that order) installed
- DC4 completely cabled, under gas, under HV
 - still needs *tested* Discriminator cards
- DC1 & DC2 have PreAmps installed
- DC1 has PreAmp -> Discriminator (P->D) cables
- Have completed sets (tested, bundled, & labeled)
 - PreAmp->Discriminator for DC2
 - Discriminator->TDC – 90% complete
- PreAmp testing complete for DC4, DC1, DC2, BCs

Installation Status - continued

- **PreAmp to TDC mapping complete for DCs**
 - *Still need to fix Discriminator->TDCs – new map*
 - *Need maps for BCs (simple)*
- **Cosmic Ray Trigger for DC4**
 - *Needs to be timed in*
- **Success in standalone readout of DC4**
- **Significant progress in integrating DC4 into readout**
- **First draft safety document**



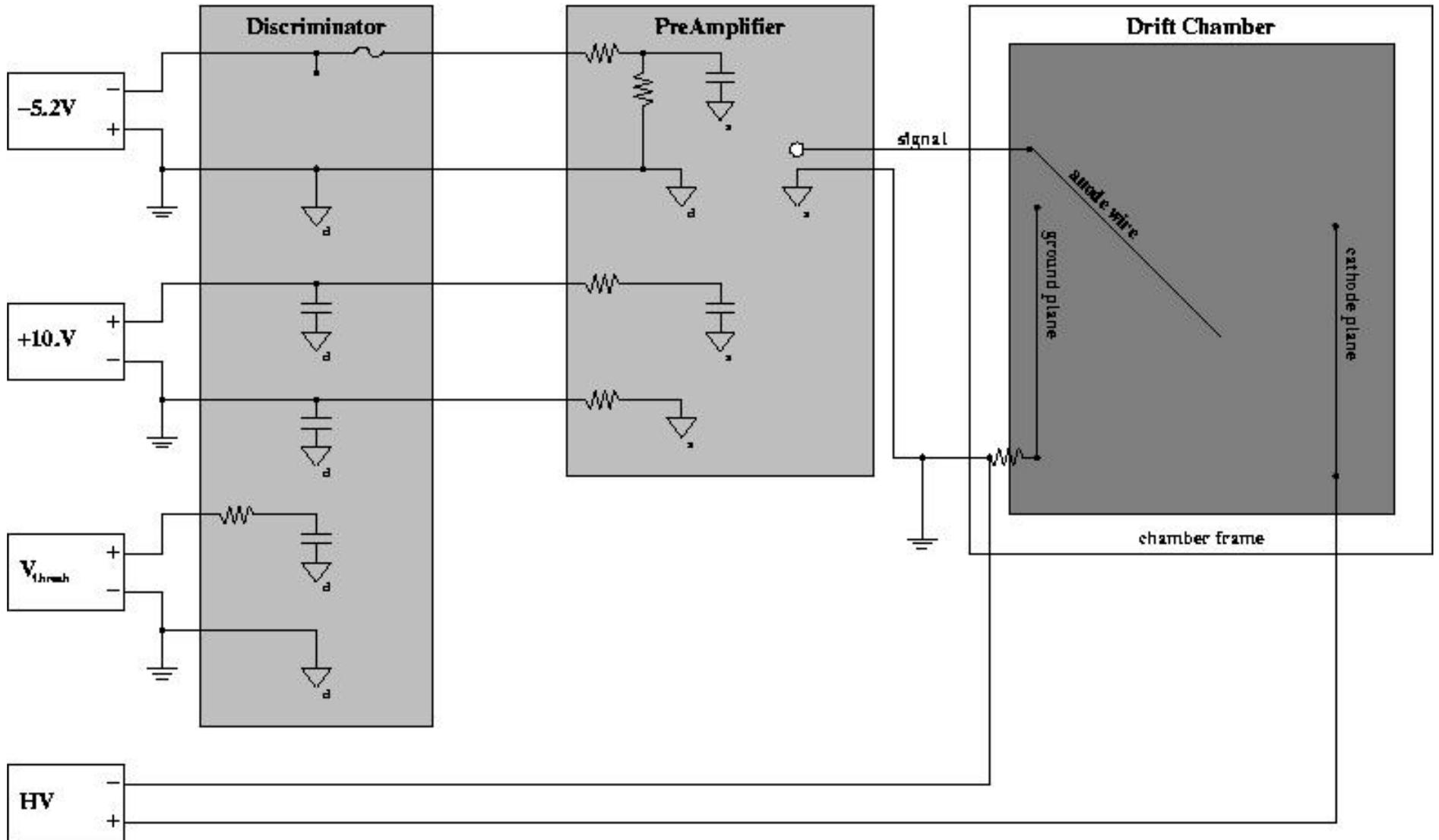
Present Efforts

- **Installation**
 - **BC1 & BC3**
 - **PreAmp -> Discriminator cables for DC2**
 - **Discriminator -> TDC cables for DC1 & DC2**
 - **Gas systems for DC1, DC2, BCs**
 - **Final HV for all chambers**
- **PreAmp Testing for DC3**
- **Discriminator Testand (*more to come*)**
- **DC Readout (*more to come*)**
- **Determination of system latency**

Electronics Testands

- **PreAmp testand operational and successful**
- **Serious noise problems with Discriminator testand**
- **Working with John Anderson**
- **Two significant problems:**
 - **Grounding scheme**
 - **CAMAC readout**
- **Imperative that we find and fix noise problem since BCs have the exact same hardware configuration**
- **DC4 tower does not appear to have this problem**

Drift Chamber Grounding



DC Readout

- **Standalone worked successfully**
- **Significant progress integrating DCs with DAQ**
- **Easy to implement due to structure of the framework**
- **Initialization working**
- **Will have full CAMAC functionality**
 - **All initialization capabilities**
 - **All run configurations**
- **Will be useful for all LRS4290 system users**

Future Plans

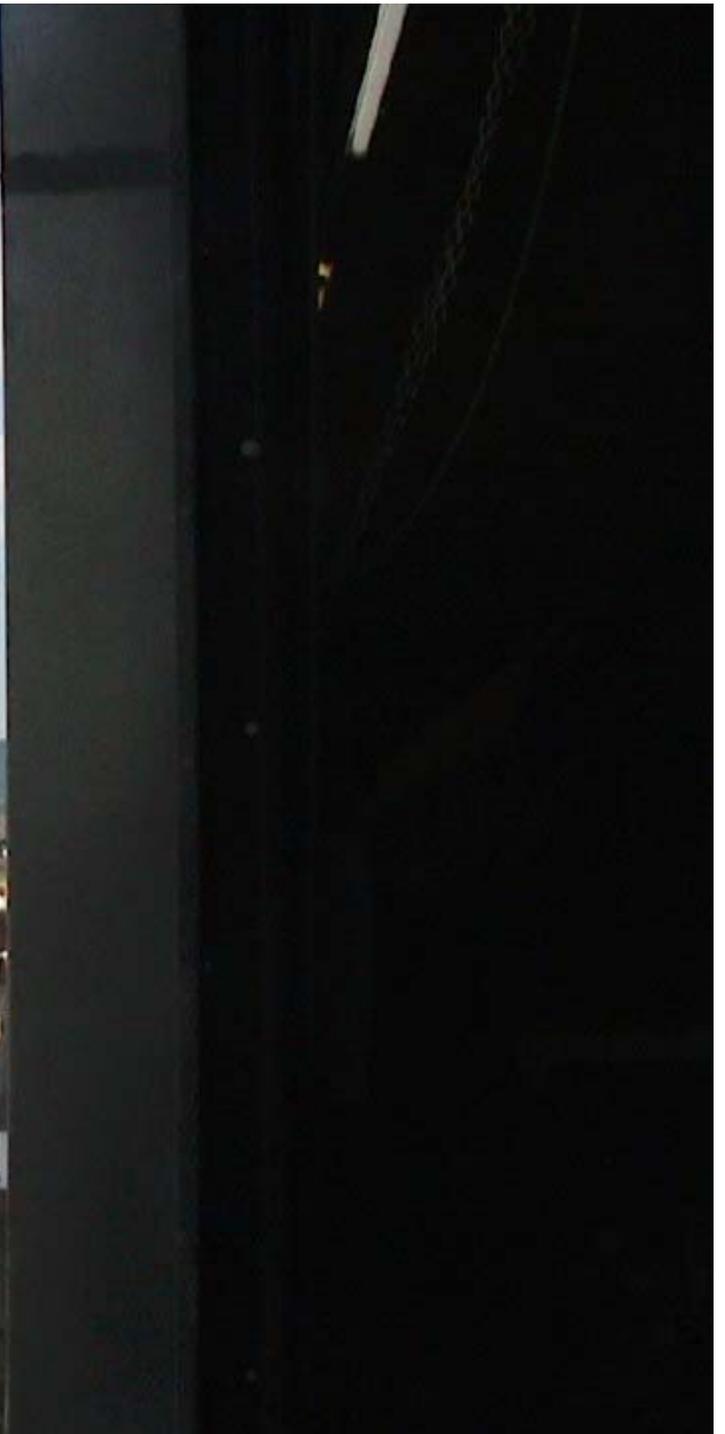
- **Complete Discriminator Testand – start testing**
- **Complete work on DC readout**
- **Time in DC4 cosmic ray trigger**
- **Read out DC4 with DAQ**
- **Begin work on DC unpacking**













Flying a Chamber
is like flying a kite













