Attendees:

<table>
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<tr>
<th>Bob Fuller (absent),</th>
<th>James Bong,</th>
<th>Tim Montagne,</th>
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<td>Tom Porter,</td>
<td>René Correa,</td>
<td>Patrick Krejcik (absent),</td>
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<td>Hamid Shoae,</td>
<td>Doug Murray</td>
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Agenda:

1. Review motion electronics status.
2. Discuss upcoming milestones.
3. We reviewed needs for the wire scanner detectors.
4. Review and update Schedule.

Previous Actions:

1. **Patrick** will determine if a motorized beamline solution is essential for commissioning.
2. **Patrick** will produce a PRD for the BC1 articulating beamline control.

New Actions: (summary; see details below)

1. None.

Minutes:

1. We reviewed the status of our motion electronics.
   a. James reports that the Hytec SMDS4 motor driver is once again working well.
   b. A long run of cable has been requested to test the distances at which a bipolar (push/pull) motor can be reliably driven. Tom reminded us that this is an appealing option since we could reduce our rack profile by 3U for the resistor chassis.
   c. We had a meeting this morning with a vendor regarding the BC1 beamline motion mechanism.
      i. John Bundschuh from Cymatix Inc. spoke to us about the various motors and related equipment that his company markets, including the MO91-FD03 motor.
      ii. We might be able to use Cymatix to supply the Slo-syn motors that we were looking for.
      iii. Tom mentioned that we didn’t get a firm delivery time on the motors.
      iv. There was a brief discussion about clearance around the vacuum header behind BC1 motion assembly. Tim felt this wouldn’t be a problem, but would check into it.
   d. Tim mentioned that motors would be selected for the new collimator design.
      i. Ideally, we could use the same motors for collimator motion as for the BC1 motion.
      ii. It was agreed that Tom would be responsible for approving motors for the new collimator design.
2. We discussed upcoming milestones.
   a. Rene mentioned that the collimator design would have a preliminary review soon (PDR). Tim confirmed that the review would be
only for the BC1 collimator.

b. James said that they will try to complete cable length testing for push/pull drives completed by next week.

c. Tim mentioned that elements of the wire scanner will be arriving soon, and that assembly will start in May.
   i. Tom said it would be helpful to talk with the assemblyperson as work proceeds.
   ii. Doug mentioned that Paul has recently updated the wire diameters based on discussions with Doug McCormick.
      1. Tim confirmed that he was aware of the changes.
      2. Most wire diameters were larger than the original 26µm specification, although one is smaller (20µm.)

3. We discussed detector and their requirements.
   a. James will coordinate the effort.
   b. We'll need Argon. Tim will check into existing Argon gas cylinders near sector 19 and let James know.
   c. The PMTs need bases, lead for shielding and support stands.
      i. The wire scanners currently named WS11 through WS-13 will have PMTs attached to the bottom of the scanners, at the end opposite the motor.
      ii. Tim said that the support stands are being designed, and Tom Borden is doing integration.
   d. There is a need for fast ion chambers.
      i. Tim said that there are no designs in place, and no engineering plans.
      ii. Tim will speak with Dave Schultz and Paul Emma regarding the priority of these elements.
   e. The PMT at the knee of the injection spectrometer beam line is intended to be an air Cerenkov detector. Clive Field has done some calculations and preliminary plans for the periscope at that point, but nothing else if happening.
   f. Tim pointed out that Dave Dowell has requested an optical window on that same bend, on the downbeam side of the BXS magnet. We'll need to resolve the issue, and Tim will talk with Dave Schultz.
      i. Tim mentioned that the scope of the projects is increasing, and we'll need to talk with Dave Schultz about freezing the design or pushing out the schedule.
      ii. He estimated it would take one month just to do the periscope work.
      iii. Tim will see if these are required and if they can be prioritized.

4. We then discussed details of the wire scanner schedule for the first 7 units.
   a. We agreed to populate the racks in high bay area of Building 24.
   b. There were several updates and additions to the schedule, which will be distributed separately.

5. We'll meet again next week (Tuesday, April 4) at our regular time, to specifically address the detector elements in greater detail, and determine tasks for the schedule.