BESIII Inner Tracker Upgrade Meeting

(August 5, 2024) 14:00 - 16:00pm (Beijing Time)

Meeting agenda and minutes

- Indico page: https://indico.ihep.ac.cn/event/23091/
- Participants:

  1. Present in the meeting room

     Zheng Wang, Qun Ouyang, Xiaoyan Shen, Tingxuan Zeng, Mingyi Dong, Hongliang Dai, Haibo Li,Jingxu Zhang,Kaiji Xie,Wang Ji,Chenglong Ma

  2. Online at ZOOM

     Michela Greco, Chenglong Jinlian, Yunhua Sun, Giulio Mezzadri, Gianliugi Cibinetto, Huirong Qi, Stefano Graminia, Jinyu Fu, Liangliang Wang, Fei Li, Xiaolu Ji, Si Ma, Linghui Wu, Jingzhou Zhao, Jing Dong

Schedule and Progress last week: Mingyi Dong

- **Summary of the report：**

  1. The Planned Progress last week

     1) Remove the valve box on west side, Move Q1A, Q1B, ISPB on west side away from the IP region

     2) Remove Q1A, Q1B, ISPB on east side;

     3) Remove SCQ and its support structure on both sides;

     4) Remove depleted uranium shield on both sides;

     5) Remove the beam pipe

     All the plans have been done.

  2. Preparation for tests of cooling and cutting the iMDC flange

1) The cutting tools was optimized

2) The tools for cooling is almost ready.

3) Testing will be conducted this week

3. Plan for the next week

1) Install the tools to pull out the EEMC, need 2days

2) Remove or loose the cables of ETOF and EEMC, need 1days

3) Pull out the EEMC, need 1days

4) Prepare the support structure for operating at MDC, need 1days

5) Remove the cooling gas pipe, shielding plates, and support structure for shielding plates of the MDC

- **Questions during the slides or planning:**

1. The time and procedure of pulling out the EEMC/ETOF has been discussed and optimized.

1) Mingyi: Wu Zhi and Dai Hongliang are ready for the next step

2) Zheng Wang : propose to take photos to position the cables of EEMC/ETOF or take the video scan.

3) The first four step will be done in parallel in order to catch up with the schedule on 7th August for the iMDC operations.

2. The time for cutting:

-Haibo is concerning to the cooling tools progress and time.

-Mingyi replied tomorrow the chiller will be ready. The cooling rings etc will be ready in 2 days.

Progress and plan in CGEM: Giulio Mezzadri

- **Summary of the report: (Oral report by Giulio Mezzadri)**

1. Argon gas was over past Wednesday morning. The bottle was replaced this Monday morning.
2. Preparation of the trigger test ongoing. Michela will arrive at ihep on Thursday so that a test in bes3 hall can take place soon
3. Test of final cabling with mock-up: we are testing different configurations in order to be able to find the optimal one. Planned to be over by end of August

- **Questions during the slides or planning:**

1. Haibo is asking about the cable test:

-Giulio: Cabling scheme will be finished presumably next week, or all the test will be finished by the end of august.

2. About the trigger test.

-Mingyi: I asked Li Fei to help Michela to organize the trigger test. Since The clock and electric level may be different. The trigger test need to be debugged in the experimental hall before the CGEM is installed. Maybe we don't have enough time to adjust all devices after CGEM installation.

-Michela: In the mails changed, there is the signal distribution and all the details for the interface, please feel free to forward to all the people interested, when I arrived, I will work on this matter.

-Haibo: asked from last week meeting, the trigger meeting would be organized this week?

-Michela: I am in the vacation period, but I will try to organize from today.

Data issues found and tests: Tingxuan Zeng

- **Summary of the report：**

1. Tingxuan reminds the no interrupt issue has two causes:

1). When no interrupt happens, the DC buffer is not empty. We can read out the data in buffer directly and the interrupt will be received again.

2). When no interrupt happens, the DC buffer is empty. The interrupt can not recover. At this time, the buffer CSR=0x130000.When we take data without interrupt, we also meet that the buffer CSR=0x130000 and no data can be read out problem. So we need to understand why the buffer CSR become 0x130000 and why the DC buffer become empty

2. More Test

1) First check the buffer length, if buffer length>500byte, then read out data, else sleep for 1 sec.

2) Can run for at least 1 hour with two DC boards.

3) Reducing the frequency of buffer register access may decrease the occurrence rate of buffer empty.

Questions during the slides or planning:

- Tingxuan is proposed to send a mail to Angelo and Pawel about all these details of her test.

- The buffer should not be empty. But Tingxuan doesn't have the manual book for what does the symbol' 0x130000'mean or other details…

- More test should be considered.