

Progress and Plan

Mingyi Dong

2024.7.15

Progress in the experimental hall last week

	Tasks	Time needed (day)	person in charge	Status
1	Remove the shielding concrete block covers on both sides	2	Facilities Operation group (Jing Xiaoping)	done
2	Disconnect the power and cooling system	3-4	Facilities Operation group (Jing Xiaoping)	done
3	Remove the small angle luminosity detector and ZDD	2	Cai Xiao	done
4	Remove the support structure for small angle luminosity detector and ZDD	1	Zheng Jianping	Changed the plan
5	Start removing magnets from IP area			

Remove the shielding concrete block covers

- Finished removal of the shielding concrete block covers on both sides on July 9
- Finished disconnection of power and cooling system of the equipment on east side
- Started removing the vacuum pipes from east side



Removal of ZDD and small angle lum. detector

- Removed small angle lum. detector and ZDD from July 10 to July 12
- It is more difficult to remove the ZDD, divided into two parts, and then took them out
- Retain the support structure of ZDD for disconnecting the valve box of the accelerator superconducting magnet

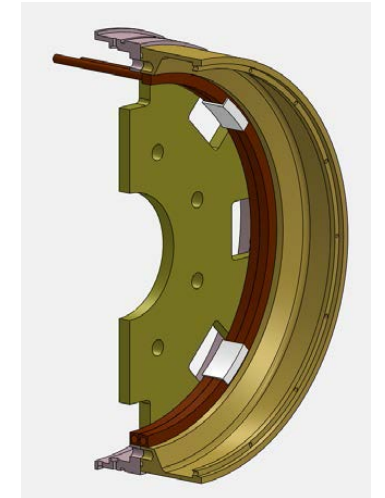


Details of the plan for next week

	Tasks	Time needed (day)	person in charge
1	Disconnect the valve box of the accelerator superconducting magnet	2-3	Cryogenic system and Facilities Operation group
2	Remove the support structure for small angle luminosity detector and ZDD	1	Zheng Jianping
3	Remove the equipment from east side	3	Facilities Operation group (Jing Xiaoping)
4	Remove support structures of the magnets from east side	2	Facilities Operation group (Jing Xiaoping)
5	Open the east door of BESIII	1	Zheng Jianping

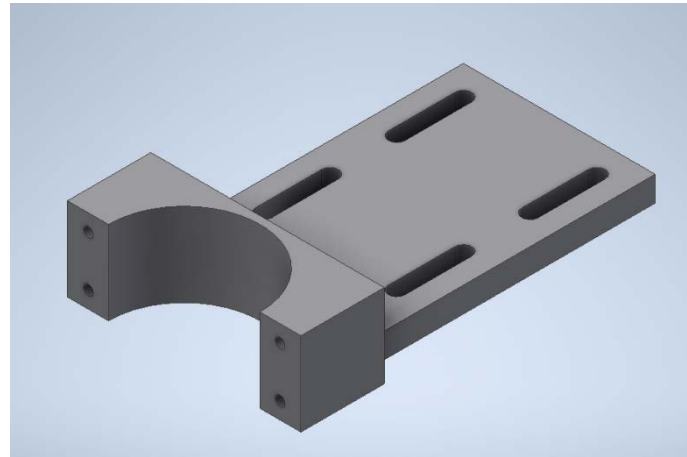
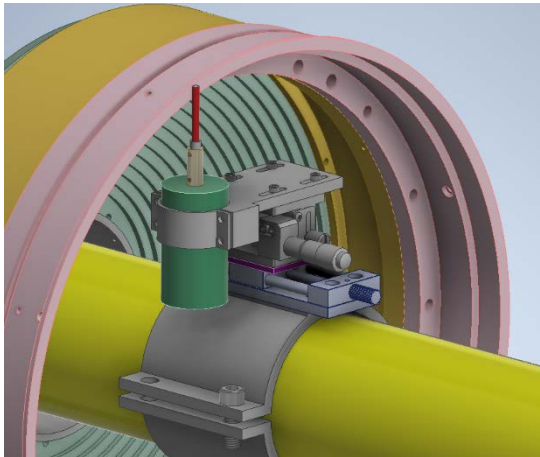
Discussion on the test of cooling iMDC flange

- Discussion on July 9
- Participants: 欧阳群, 陈元柏, 付金煜, 荆小平, 马骁妍, 董明义
- According to the experimental and calculation results, set the safety pull-out strength to 200kg
- Prepare both cooling and cutting schemes simultaneously. When extracting the inner chamber, cool it first, and the final way is cutting
- **Cooling scheme:** see Jinyu's talk (chiller+ cooling ring)
- Updated cutting scheme :
 - The flange should be cut through, including the small step on the flange (tools required)
 - With O-ring, the risk of aluminum shavings entering the MDC may not be significant
 - Cut two adjacent seams to remove a small piece (requires tools to cut along phi direction)



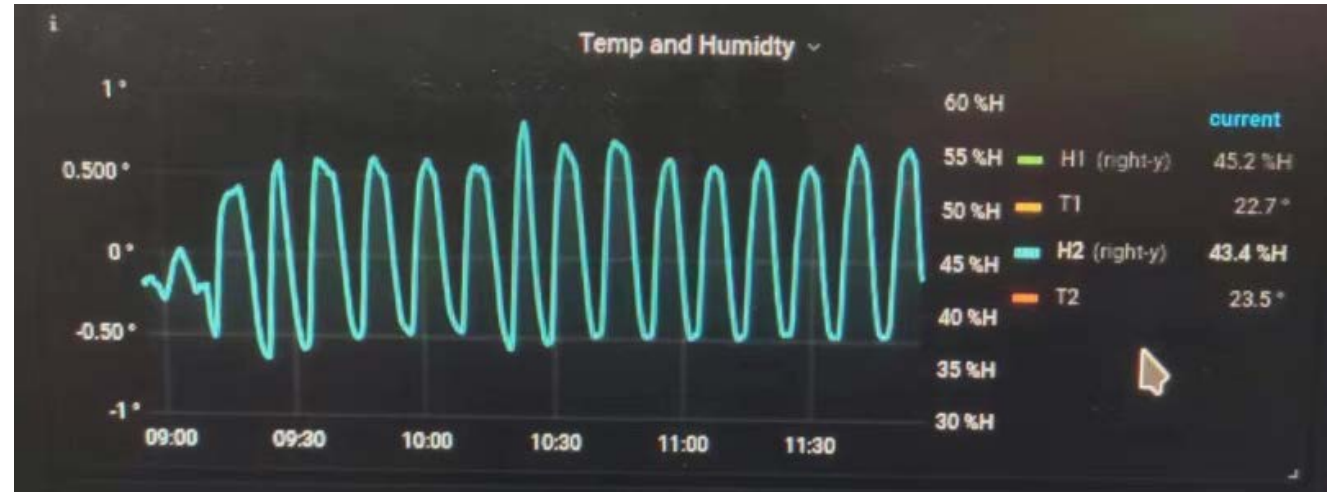
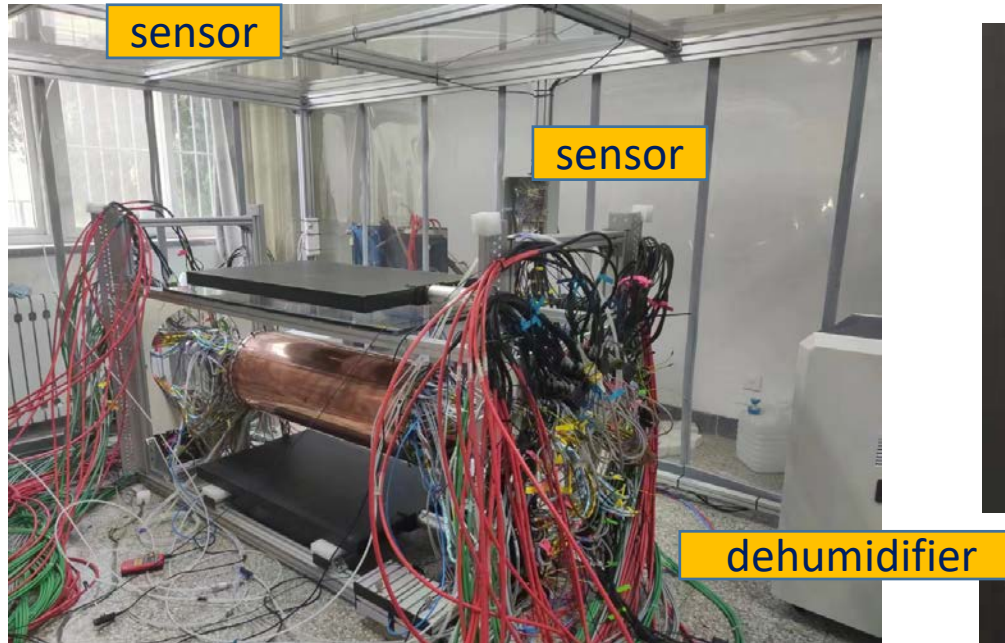
Preparation for test of cutting the iMDC flange

- Fix the motor vertically
- Cut the step of the flange with a small steel file

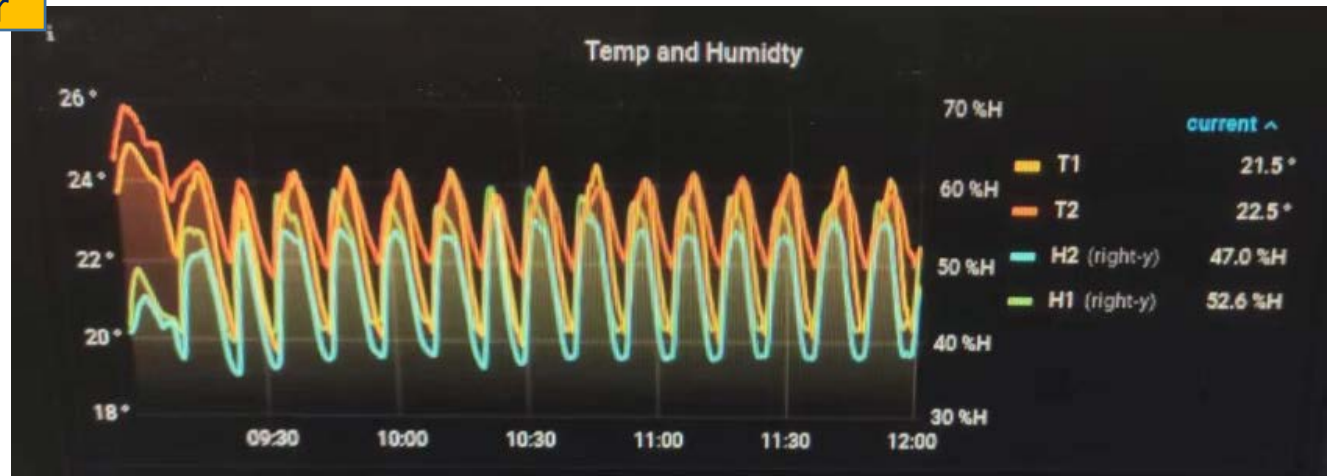


Dehumidifier was put into room106

T and H on July12 (It was raining)



- A dehumidifier started working on July 10
- The humidity is controlled below 55%-57% (sensor1 and sensor2)



Backup

Schedule (may be updated each week)

No.	tasks	Duration (day)	Start time and stop time	Sub-system involved
1	Removal of equipment of machine		July 1- Aug. 6	Utility, Small angle lum. Detector and ZDD, Beam pipe, slow control
2	Pull-out of EEMC			Utility, EMC, TOF, MDC, MUC
3	Removal of inner chamber (Operate simultaneously on both sides)	51	Aug. 7- Sep.7 Sep.8- Sep. 28	MDC, MDC electronics, Gas, Mechanics, Laser Alignment group, Trigger, DAQ, Slow control
4	Installation of CGEM	44	Sep.29- Nov. 11	CGEM group, MDC, MDC electronics, Gas, Mechanics, Laser Alignment group, Trigger, DAQ, Slow control
5	Recover EEMC		Nov. 12-Dec.30	Utility, EMC, TOF, MDC, MUC
6	Recover equipment of machine			Utility, Small angle lum. Detector, ZDD, Beam pipe, slow control,
total		180 days	July 1- Dec.30	

Key tasks before extraction of iMDC and installation of CGEM

- CGEM Mock-up insertion test (Done, successful)
- Laser alignment preparation
- Extraction of the inner MDC is considered to be the most critical point.
Continue inner chamber extraction test
 - Preliminary discussion on cooling the connecting flange
- Continue CGEM cosmic-ray test to gain more experience with the full detector
- CGEM integrated and tested with BESIII DAQ, trigger, and slow control