

2021-05-18 Detector Planning Meeting notes

Attendees

- [McKelvey, Mark E](#)
- [Philip Hart](#)
- [Kazutaka Nakahara](#)
- Conny Hansson
- Bhavna Nayak
- Chris Koerber

Goals

- Set and status planning activities for detector development and deployment.

Discussion items

Time	Item	Who	Notes
10 min	Beamtime support update		<ul style="list-style-type: none">• Good progress during Fromme, more work to go.• XCS/MFX constants status (PH train Bhavna on processing CI data?)• Ghost-less 10kSmall in CXI...working?• Run 18 lessons learned reminder....hold until next week when Conny returns.• What worked well?• What we can do better?• What is the recurring issues needing attention?• What is most needed to make your job easier?• What do you wish people would know that would make your work smoother?• What do you wish you knew that would make your work smoother?

30 min	Priorities Review	All	<ul style="list-style-type: none"> • 2021 events: <ul style="list-style-type: none"> ◦ Projects new starts: <ul style="list-style-type: none"> ▪ VFCCD/ePixM downselect ePixM selected, sciencec leadership considering smaller ePixM plus XPCS version. ▪ SparkPix-S Phase II (full-size ASIC for sparsification, Tixel-based, underway, likely needs LGAD to meet PW spec) ▪ ePixHR IV: Prototype detector project underway ▪ TXI Detectors (2Mp and 140kp based on ePixHR @5kHz) CDR Closed out, project underway. ▪ ePixUHR (130nm TSV structure to reach 100kHz), planning, need to consider SparkPix-ED results. ◦ Production: <ul style="list-style-type: none"> ▪ spare modules (0.5 & 1mm) Module order in work, new sensor order out ▪ Approved 3d copy of ePix10k2m: underway, November delivery ▪ Approved spare quads for MEC: underway, August delivery ▪ Proposed in-air 2m/1mm, planning in work. ▪ Proposed UED detector upgrade, planning in work. ▪ Proposed ePix10k4m (concept) ◦ RIXS-CCD/cooler test and verification: Delivery delayed until mid-July ◦ HiZ collaboration tests: SSRL Lol needed, Ge chamber tests ◦ Outreach for R&D support (SparkPix-ED, SparkPix Delta). ◦ Support effort for LCLS-II-HE instruments (performance verification/implementation planning) ◦ SBIR effort for UXI. • Group priorities review: <ul style="list-style-type: none"> ◦ Testing <ul style="list-style-type: none"> ▪ CompEn bit function on 10k...update? ▪ Review with TID the stitching progress, look for improvements. Latest on switching noise? ▪ Can we figure out what's wrong with ePix100/7? ▪ RIXS-CCD cooler test planning. ◦ Analysis <ul style="list-style-type: none"> ▪ Gather and process relevant commissioning data for Mp travellers on Confluence. <ul style="list-style-type: none"> ◦ Solid pedestals ◦ Noise map ◦ Response uniformity (mini-X cu-fluorescence) ◦ Bootstrap gain (sealed source) ◦ Linearity (signal injection) ◦ Documentation <ul style="list-style-type: none"> ▪ Complete on-line travellers for Mp detectors ◦ Development ◦ Lab 'commissioning' <ul style="list-style-type: none"> ▪ DAQ <ul style="list-style-type: none"> • Storage nodes configured, put in use? • LCLS I/II compatibility? ▪ Chase racks anchored....cables, water status? ▪ Vac chamber for in-lab tests? Compatible with XPP alcove? <p>Actions:</p>
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30 min	Status	<p>LDAC Panel assembled (waiting on Kuster)</p> <p>KN:</p> <ul style="list-style-type: none"> • Jungfrau installed at XPP, geometry file missing • Dan has fixed MFX DAQ, pedestals not applying properly....take peds scripts may need revision. • Maciej has provided timing info for new 10ka firmware, needs more test. • Spare JF Power supply received, need cold plate. • UED MPOD? <p>PH:</p> <ul style="list-style-type: none"> • Started processing CI on CompEn exp....nothing jumps out. • MEC experiment on Thursday, detectors should be OK <p>BN:</p> <ul style="list-style-type: none"> • Run cal on new ePix firmware. • Grafana setup to alert Slack channel. • Made updates to detector website, in work. • Working with PH on porting PyRoot to Python. <p>CK:</p> <ul style="list-style-type: none"> • Run 19 deployment schedule through July. • Lesker chamber quote in work. • Materials for chase cable trays.Ge chamber assembly • Order/borrow Variac. • XPP having trouble with pgp server that runs 2M.
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5 min	Budget Update	mmck	<ul style="list-style-type: none">M&S Status (Through March)																																																																																																																																																																																																																									
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