

CEPC vertex Detector

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Ref-TDR

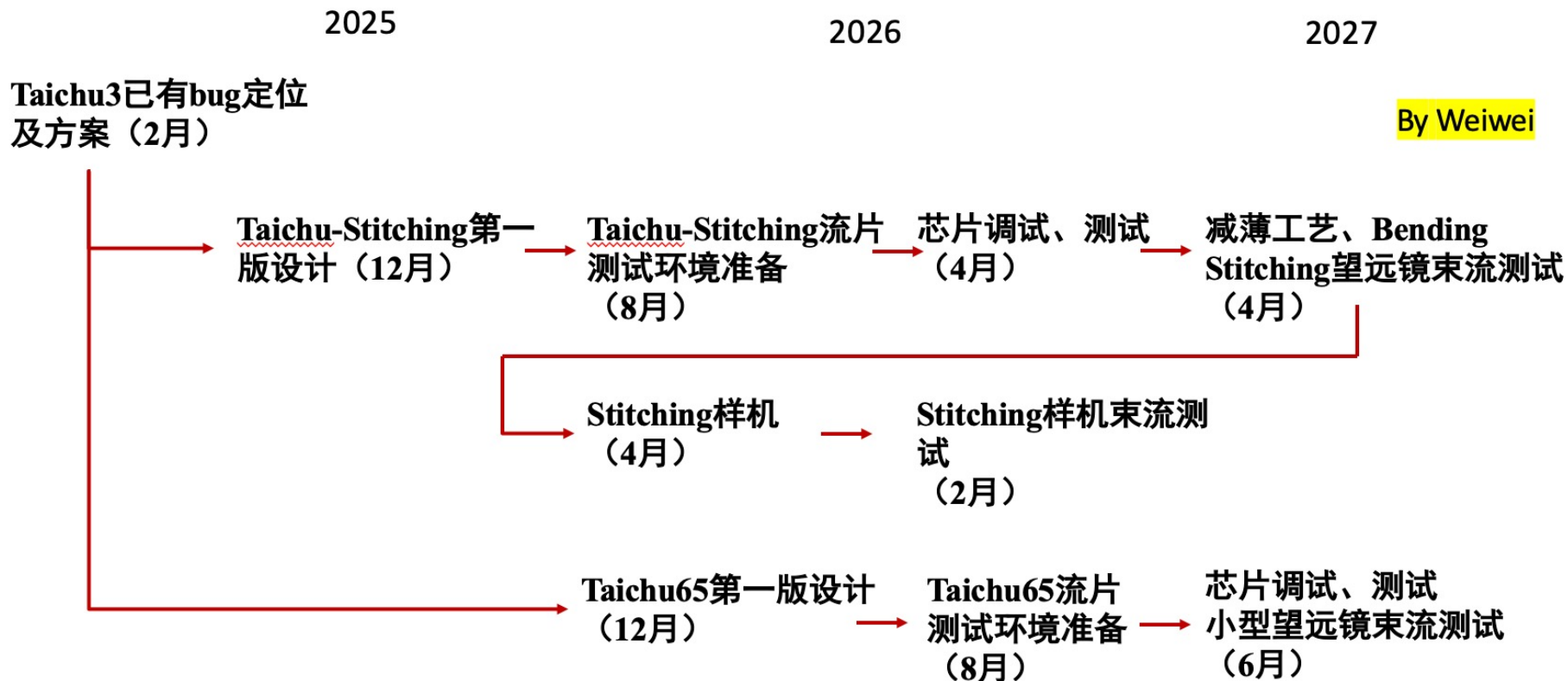
- More than 50 pages ready (95%)
- Introduction part (ready)
- R & D part
 - Jadepix/Taichu (1st draft ready)
 - Stitching (1st draft ready)
- Detector design
 - Physics Layout (1st draft ready)
 - Background (Z pole estimation to be updated)
 - Stitching design (1st draft ready)
 - Mechanics (1st draft ready)

<https://latex.ihep.ac.cn/project/6745179fef5108a66841008a>

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Rough schedule for 3 years (preliminary)

- 2025: stitching engineering run design based on TJ180nm
- 2026: Engineering run design based on TPSCO 65nm
- 2027: Vertex detector prototyping



Stitching design

■ Repeated sensor unit (RSU) design

- Dead area in power switches
- Stitched backbone
- Deadzone Implemented in simulation

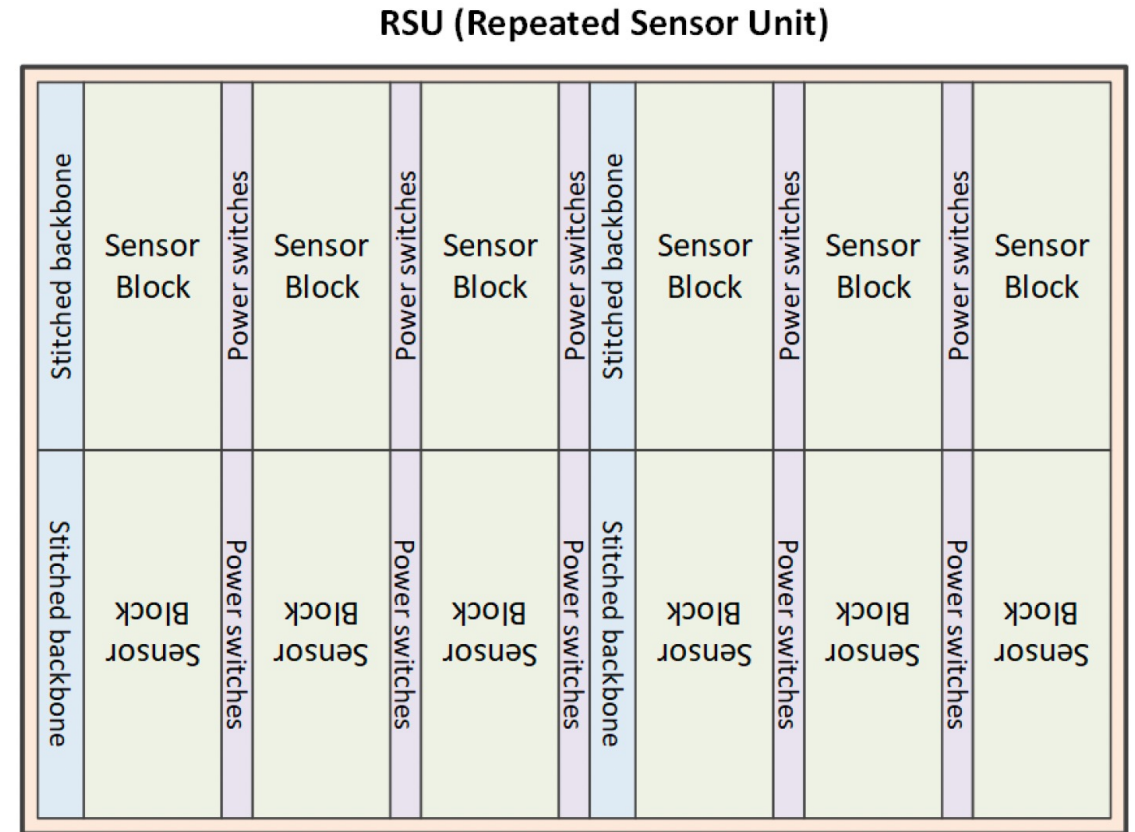


Figure 1.49: Proposed floor-plan for a repeated sensor unit (RSU) (not to scale).

backup

Aluminum flexible PCB

- Yunpeng found a PCB company interested in developing Aluminum flexible PCB
- May be able to reduce the material for ladder design

