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## RESEARCH ON MECHANICAL & ALIGNMENT SYSTEM FOR HEPS-TF

HEPS is a new generation synchrotron facility with a challenging requirement of very low emittance, and the key technology difficulties are supposed to be overcome during the stage of HEPS-TF. For the mechanical & alignment system, the requirements are very stringent. The alignment error of magnets on a girder should be less than  $30\mu\text{m}$ . Besides, the girder should be capable of doing beam-based alignment remotely to minimize the magnets position error during the runtime. To meet these requirements, studies on vibrating-wire alignment technique and auto-tuning magnet girder were carried out in HEPS-TF. This paper will describe the design and progress of those work.

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