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## **Flexi-Gun research and development project at BESSY II**

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A research project was initiated at HZB to develop a new E-Gun control system for the Linac Gun to realize the advanced demands from the BESSY II injection scheme. The Flexi-Gun system will allow significantly higher flexibility in both pulse load and pulse timing structure. The purpose built gun test stand is equipped with a diagnostic beamline. Developed and manufactured in-house, the potential for knowledge transfer has led to a collaboration with ALBA for start-to-end particle tracking simulations. This article presents the motivation and potential of the Flexi-Gun, the development of the driver board and control, and the first measurements of the beam parameters.

With the “Flexi-Gun” project, the upgraded Linac E-Gun becomes the optimal injector for BESSY II.

### **Funding Agency**

### **Footnotes**

### **I have read and accept the Privacy Policy Statement**

Yes

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