

Abstract Submitted  
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**Progress on the Princeton field-reversed-configuration-2 (PFRC-2) device**<sup>1</sup> S.A. COHEN, A. BROOKS, B. BERLINGER, C.E. MYERS, M.R. EDWARDS, D.R. FARLEY, H. FEDER, PPPL — Research goals of the PFRC-2 device, an RMF-heated FRC being built with ARRA funding, are to attain ion and electron heating to keV energies and improved energy confinement. To reach these goals requires increases in device parameters, particularly plasma radius, axial magnetic field, pulse duration, and heating power, from which improvements in plasma behavior, such as reduction of drift parameter, turbulence level and neutral hydrogen density, should derive. Herein we describe the technical methods being implemented to achieve the increases in device parameters, physics reasons why the improvements are expected, and diagnostics that will be used to ascertain whether they have.

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