Status of the Project 8 Detector Prototype JARED KOFRON, University of Washington, THE PROJECT 8 COLLABORATION — The average mass of the 3 neutrino mass eigenstates has been bound by oscillation experiments and by direct mass measurements to lie in the range $0.02 \, \text{eV} \leq m_\nu \leq 2 \, \text{eV}$. Nonetheless, only the upper decade of this parameter space will be accessible to the most sensitive experiment presently under construction, KATRIN. The Project 8 collaboration has been involved in the development of technology in the form of a prototype detector which may offer sensitivity to neutrino masses over the entire allowed parameter space. The key to this technology is a direct, non-integrated measurement of the energy spectrum of $\beta$ decay electrons very near the endpoint of $^3\text{H}$ decay by probing the cyclotron frequency of those electrons as they move in a strong background magnetic field. The current generation of the prototype detector is expected to reach 1 ppm resolution of the cyclotron frequency of the electron. Recent progress and results from the detector prototype will be discussed. This research is supported by DOE under grant DE-FG02-97ER41020.