Abstract Submitted for the APR11 Meeting of The American Physical Society

The QWeak Experiment's Main Detector System SCOTT MACE-WAN, University of Manitoba, QWEAK COLLABORATION — The  $Q_{Weak}$  experiment will determine the weak charge of the proton  $Q_w^p$  to 4% accuracy by measuring the parity violating electron scattering asymmetry from a liquid Hydrogen target at a fixed  $Q^2$ . The Standard Model makes a precise prediction of the value of  $Q_w^p$ , and as such makes it sensitive to new physics.  $Q_{Weak}$ 's main detector subsystem is comprised of eight identical 2 m long quartz bar Cerenkov detectors that can operate in both integrating and counting configurations, depending on the task at hand. Where integrated detector yields are required to measure asymmetries, counting mode data acquisition is required in order to properly characterize detector performance as well as accurately measure momentum  $Q^2$ . A summary and status review of the main detectors will be discussed for each running mode.

> Scott MacEwan University of Manitoba

Date submitted: 13 Jan 2011

Electronic form version 1.4