Instrumentation Request List for Experiment E06-014

Beam

Polarization [%]	>75%
Beam polarimetry (Compton/Møller)	Moller, Compton (if available)
Helicity flip scheme (delayed/quartet/duo)	G0-type (delayed?)
Energy range [GeV]	5.7, 1.14 (1 pass), 2.28 (2 pass)
Energy measurement (Arc/EP)	eP and Arc
Current range [µA]	0.2 – 20 µA typical (maximum ~80 µA for BCM calibration)
Spot size (h x v) [σ] [µm]	> 100 µm
Raster size (square/round) (h x v/ø) [mm]	3x3
Energy spread [σ]	10^{-4}
Energy lock	On

"HAPPeX feedbacks" should be enabled.

Targets (specify thickness)

Photon radiator	
LH2 (4/15/20 cm)	
LD2 (4/15/20 cm)	
Helium-3/4 (4/10/15/20 cm)	Polarized He-3 target and Ref. cell (common to "Big Family")
Target ladder angle (w.r.t. beam)	0°
Solid targets (specify each)	multi-foil Optics w/ BeO and C foils

Spectrometers (specify required detectors)

HRS-L	X	HRS-R	(Not used)
Angle range [°]	30°--70°	Angle range [°]	Parked at >100°
Momentum range [GeV/c]	0.6 -- 2.5	Momentum range [GeV/c]	
VDC1	X	VDC1	
VDC2	X	VDC2	
S0		S0	
S1	X	S1	
S2	X (S2*m*)	S2	
Gas Cherenkov (long/short)	X (short)	Gas Cherenkov (long/short)	
A1	X		
A2			
FPP			
Preshower/Shower	X	Preshower/Shower	
RICH	X (optional)		

Trigger/DAQ

Coincidence/single	BigBite and LHRS run in parallel (single-arm mode). Bob's 'syncronized' DAQ start/stop scheme (as in LEDEx) would be useful (optional).
Define trigger	Triggers for each arm are independent.

Other Instrumentation

BigBite w/ Electron Detector stack (3 MWDC, Cerenkov, Shower, Preshower, Scintillator plane)

NOTE: The target ladder, LHRS, and BigBite detector stack will have the same configuration as for E06-010/-011.