

MOLLER Task	Topic	Deliverable	CIS/Grames		CASA/Roblin		OPS-Inj/Kazimi		I&C/Rider		OPS-SW/Kjeldsen		OPS-MCC/Vasil.		SSG/Kowal		RCG/Welch		FastElec/Cueves		Milestones			Comments
			FTE	M&S (k\$)	FTE	M&S (k\$)	FTE	M&S (k\$)	FTE	M&S (k\$)	FTE	M&S (k\$)	FTE	M&S (k\$)	FTE	M&S (k\$)	FTE	M&S (k\$)	FTE	M&S (k\$)	FTE	M&S (k\$)	FY24	
1	Helicity Generator	Helicity board with new settings		1							0.1								0.2		5 boards given to MOLLER coll. Fix two boards	Maintain	Maintain	
2	Helicity Decoder	New Boards for delayed helicity reporting		4															0.6	25	Build 20 boards and distribute to Halls	Maintain	Maintain	
3	RTP Pockels Cell HV	Build, install a new 8-channel driver, with 10 $\mu$ s risetime, electrically isolated	0.7	40					0.7	39	0.2										Design Bench testing Installation CEBAF beam test	Fabricate spares	Operate Maintain	Need PR for John Hansknecht, \$20k contingency
4	IA HV Driver	Build, install a new 4-channel driver, with 10 $\mu$ s risetime, electrically isolated	0.7	30					0.3	25	0.1										Design Bench testing Installation CEBAF beam test	Fabricate spares	Operate Maintain	
5	Helicity Magnets Control	Build, instal new control system, with 10 $\mu$ s rise-time, electrically isolated	0.5	30	0.1				0.3	18	0.2										Design Bench testing Installation CEBAF beam test	Fabricate spares	Operate Maintain	
6	Polarization Feedback	Provide feedback mechanism (Wiens or energy) to keep $P_L$ within 0.25°	1.3	100	0.3		0.3														Design Implement CEBAF beam test	Operate Maintain	Operate Maintain	New Wien filter might be needed
7	Wien Filter Slow Reversal	Study Wiens Flip-Right and Flip-Left setups	1.3	50			0.4														Model Inj beam test	Inj beam test	Inj beam test	Repair might be needed
8	Injector Transmission and PQB	Optimize injector transmission for >95%	0.3				0.4														Model Inj beam test	Inj beam test	Inj beam test	
9	Matching and Adiabatic Damping	Deliver matched beam and adequate damping	0.2		0.4		0.3														Model and tools Beam test	Beam test	Beam test	
10	Fast Feedback	Test and maintain existing system			0.6				0.2		0.1										Beam test	Beam test	Beam test	
11	Compton Polarimeter	Setup beam thru polarimeter with low halo > 100 Hz/ $\mu$ A			0.3																Beam test	Beam test	Beam test	
12	Beam Modulation	Hot checkout and maintain system			0.1				0.1		0.1										Hot checkout	Beam test	Beam test	
13	Phase Advance	Design Hall A brsm optics with sufficient phase advance			0.1																Model Beam test	Beam test	Beam test	
14	K-long Beam	Install Hall D low-rep laser, IA laser system. Study photocathode effects. Model beam loading in Linacs and test with beam. Write report to Physics Division	0.5	25	0.4		0.4														Study K-long beam Write report			
15	Control of Charge Asymmetry	Measure and control charge asymmetry of Halls B, C, D									0.1										Beam test	Beam test	Beam test	
16	PQB in Injector and Hall A	Setup PQB in injector and Hall A and perform beam studies	0.2		0.2		0.2														Beam test	Beam test	Beam test	
17	Hallo Monitors in Hall A	Install halo target and detectors and provide FSD and EPICS controls							0.2		0.2				0.1	6					Design	Install		
18	MOLLER Apparatus Protection	Protect apparatus from beam mis-steering									0.2		0.6		0.1	20	0.2				Design	Design	Install	
19	BPM Receivers	New receivers in Hall A line instead of S/H cards							0.3		0.1										Design Bench testing	Installation CEBAF beam test	Beam test	
20	BCM Receivers	New BCM recivers in Hall A line							1		0.1										Design Bench testing Installation CEBAF beam test	Beam test	Beam test	
21	PQB Liason	Coordinate MOLLER tasks	1.8																					
<b>TOTAL</b>			<b>7.5</b>	<b>280</b>	<b>2.5</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3.1</b>	<b>82</b>	<b>1.5</b>	<b>0</b>	<b>0.6</b>	<b>0</b>	<b>0.2</b>	<b>26</b>	<b>0.2</b>	<b>0</b>	<b>0.8</b>	<b>25</b>				

Task Color Code	
	Almost done
	Did it before, should be straightforward
	Working on it, should be able to do
	New or hard, could be very complicated