

DSG-EIC DIRC Meeting

Date: November 13, 2023

Time: 2:00 PM – 2:30 PM

Attendees: Aaron Brown, Imani Burton, George Jacobs, Tyler Lemon, and Beni Zihlmann

1. Barbox stand-in moved to EEL 108

Greg Kalicy

1. The stand-in was previously used during Hall D DIRC assembly for testing material handling and installation procedure
2. Stand-in will help determine whether the new shipping crates are adequately modified for safe transport

2. Need Facilities Management (FM) to determine size of fresh-air intake for AC unit

George Jacobs, Tyler Lemon, and Marc McMullen

1. Have attempted to meet twice with FM, but on both occasions, FM did not respond to invites or attend
2. Work involves cutting a large hole in a wall of the sub-room, which will generate dust
3. Optics and laser components must be kept clean and dust-free, thus work must be completed before setting up equipment

3. Procurement of suspension system parts for shipping crates

George Jacobs, Greg Kalicy, Tyler Lemon, and Beni Zihlmann

1. Procurement request for McMaster-Carr items in table below submitted and signed on November 10, 2023
 - In JLab procurement with buyer
 - Expect to receive majority of parts within one week
 - Per McMaster-Carr website, some dampening arms are backordered, with expected delivery in 2–3 weeks

McMaster-Carr Part #	Item	Quantity
9538K21	Adjustable Air Spring	72
9898K83	Dampening Arm	24
91478A738	Hex Head Wood Screw, 1/2" Size, 7" Long, Pack of 10	10 packs (100 total)
91478A644	Hex Head Wood Screw, 3/8" Size, 5" Long, Pack of 25	4 packs (100 total)
92865A634	Hex Head Screw, 3/8"-16, 2-1/2" Long, Fully Threaded, Pack of 10	10 packs (100 total)
92141A031	Washers for 3/8" Screw Size	2
95462A031	Hex Nut, 3/8"-16, pack of 100	1 pack (100 total)
74835A48	Medium Locking Strength Threadlocker	1
7610A253	Spray Glue Can	2
29515A67	Drill Bit, 5/16" Size, 8" Overall Length	1
29315A132	Drill Bit, 15/64" Size, 6-1/8" Overall Length	1
8870A55	Drill Bit, 41/64" Size, 7-1/8" Overall Length	1

2. Metal tubing for mounting air suspension system to be ordered with JLab PCard
 - Waiting on tax exemption status to be updated with source
 - Anticipate submitting order at the latest by Tuesday, November 14.
 - Expect delivery lead time of 1–2 weeks
 - Tubing will arrive cut to length for brackets, but will need holes and cuts made for mounting to crates

Part	Length	Quantity	Use
2" square steel tube	36"	24	Bottom air-suspension mounting fixture
3" x 3" aluminum angle	5"	24	Side air-suspension mounting fixture
1" square aluminum tube	3"	48	Dampening arm mounting fixture

3. Other parts to procure

#	Item
1	2" riser foam
2	Hand latches
3	Air suspension tubing
4	Air suspension fittings
5	Air suspension gauges
6	Cableway for laser area

4. Remaining work on crates

George Jacobs, Greg Kalicy, Tyler Lemon, and Beni Zihlmann

1. List is not final
2. Categories
 - Preparations – work that must be completed before working on physical components
 - Standalone work – work that can be completed in parallel with other tasks and can be started as soon as materials are on hand
 - Final assembly – work that requires material handling support and multiple people
3. * represents tasks that should be completed with sides removed from crate

#	Category	Task
1	Preparations	Order and receive materials
2	Preparations	Create fabrication drawings for air suspension mounts
3	Preparations	Fabricate suspension mounts
4	Preparations	Finalize air-suspension tubing, fittings, and components
5	Standalone work	Cut foam for wooden brackets
6	Standalone work	Install foam on wooden brackets
7	Standalone work	Add spacers to crate walls for air suspension
8	Standalone work	Assemble air suspension mounts with air springs
9 *	Final assembly	Remove sides of crate
10 *	Final assembly	Install air suspension assemblies
11 *	Final assembly	Install dampening arms
12 *	Final assembly	Install tubing and components for air suspension
13 *	Final assembly	Install hand latches
14 *	Final assembly	Install risers and padding
15	Final assembly	Reinstall sides of crate