

MEETING MINUTES

Topic: More manufacturing: cleaning up system

Sunday, November 4, 2018

9:00 am to 5:00 pm

Minutes recorded by _Jacob Barker_

Meeting called by _Jacob Barker_

Attendees: _Jacob Barker, Samm Metcalfe, Ashley Shumaker (9:00 am-1:30 pm)_

Table 1. Record of meeting.

9:00 am to 9:15 am	Game plan for finishing manufacturing <ul style="list-style-type: none">• Made a list of remaining tasks to finish manufacturing• Made a list of things left to purchase	Samm's Apartment
9:15 am to 10:00 am	Trip to HomCo <ul style="list-style-type: none">• Went to HomCo as a team to buy supplies. Purchased:<ul style="list-style-type: none">○ Teflon tape to fix leaks in system○ Foil tape for heat exchanger sealing/installation○ Materials to attach tube and allow for opening/closing:<ul style="list-style-type: none">• Hinges• Toolbox style latch• Screws to attach hardware• Foam insulation to seal cut line○ Brackets to affix heat exchanger○ Pipe tap of correct size○ Grommets for thermocouple and tubing holes drilled in cart	HomCo
10:00 am to 1:30 pm	Manufacturing <ul style="list-style-type: none">• Disassembled pressure measurement manifold. Will need to remeasure everything for permanent attachment• Drilled holes in cart for valves, tubes, thermocouple wires<ul style="list-style-type: none">○ Installed grommets in all drilled holes• Attached two halves of acrylic tubing with hinges and latch• Measured and marked location of engine model<ul style="list-style-type: none">○ Decided to move model back for better valve/tube placement• Disassembled heat exchanger, wrapped all threads in Teflon tape, reassembled• Relocated DAQs on cart behind push handle<ul style="list-style-type: none">○ Will prevent them from being crushed if cart bumps into something• Relocated heat exchanger	Room 120

	<ul style="list-style-type: none"> ○ Drilled holes and installed L-brackets for permanent mount ● Insulated top cart platform above heat exchanger with insulation tape 	
1:30 pm to 2:30 pm	<p>More Shopping and Lunch Break</p> <ul style="list-style-type: none"> ● Ashley had to leave ● Samm and Jacob went to Home Depot to obtain a few more things: <ul style="list-style-type: none"> ○ Zip tie mounts to clean up tubing and wiring underneath cart, mount pressure transducers ○ More brass fittings for pressure manifold <ul style="list-style-type: none"> ▪ Some were damaged when disassembling 	Home Depot
2:30 pm to end	<p>Finishing Manufacturing</p> <ul style="list-style-type: none"> ● Drilled more holes for thermocouple wires <ul style="list-style-type: none"> ○ Grouped together on left side of cart near DAQ so they can be switched quickly and easily ● Measured out vinyl tubing for new pressure manifold ● Assembled permanent manifold underneath cart ● Attached valves through top platform, T-joints and pressure transducers underneath platform using zip tie brackets ● Discussion of Remaining Manufacturing <ul style="list-style-type: none"> ○ Samm will go to junkyard to source second air tank <ul style="list-style-type: none"> ▪ If found, will need to be painted and plumbed to first air tank ○ Need to insulate heat exchanger somehow and install heat shield for safety ○ Will reprint blades for better quality <ul style="list-style-type: none"> ▪ Use fresh half of acrylic tube ○ LabVIEW***** 	Samm's Apartment