

Q: How to lift the tank and replace a heat pad on Romag?

A:

A. Securing the tank and heat exchanger.

1. Remove the insulation
2. Unscrew the threaded rods from the bottom stainless steel plate and retightened on the heat exchanger.
3. Zip tie the threaded rods to the lab frame (apply no stress).
4. Gallium-proof the system by securing some robust plastic bags at the bottom plate to prevent gallium falling on the ground.
5. Wrap a long belt around the tank and then around each rod to secure the tank with the heat exchanger.

B. Lifting

0. Apply thermal grease on the new head pad before lifting.
1. Clean the edge of the heat pad as much as possible with a blade.
2. Try to pry with a screwdriver while another person is holding the tank. (Tilting the bottom plate will help the prying)
3. Try to insert the tongue of the mini-jack one by one (above the heat pad)
4. Use threaded rods to secure the system from tilting
5. Replace the heat pad.

C. Lowering

1. Unscrew thread rods and place shim.
2. Release the jack (one at a time) completely and the load falls on the shim. Lift the jack but do not lock, get rid of the shim.
3. Gently remove the jack and let the tank sit on the new heat pad.
4. Redo the insulations and get rid of the extra supports/protections.

Yufan Xu

6/13/18

Need to do for lifting the tank.

A. Securing / Locking

1. Remove the insulation.
2. Zip tie the threaded rods to the frame (no stress) Fig. 1
3. Gallium-proof the device. (using a robust plastic bag)
4. Wrap ^a the belt around the tank and around each rod (Fig. 2)

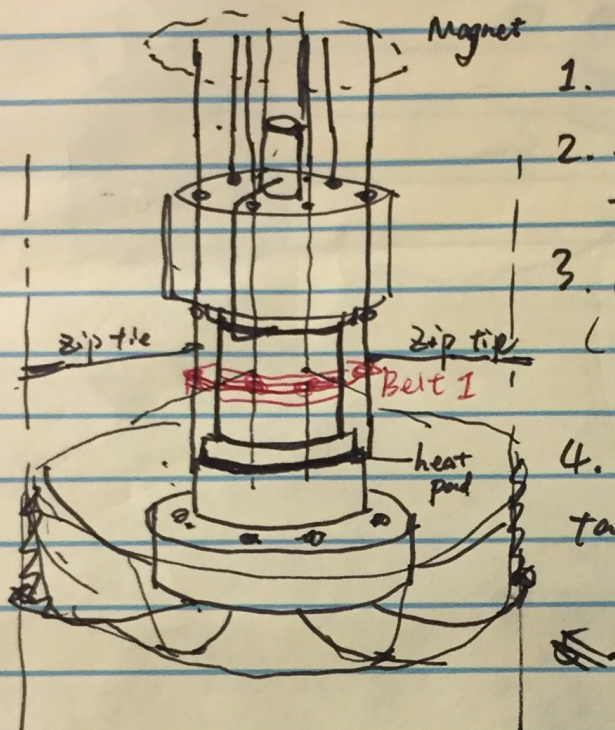


Fig. 1

B. Lifting

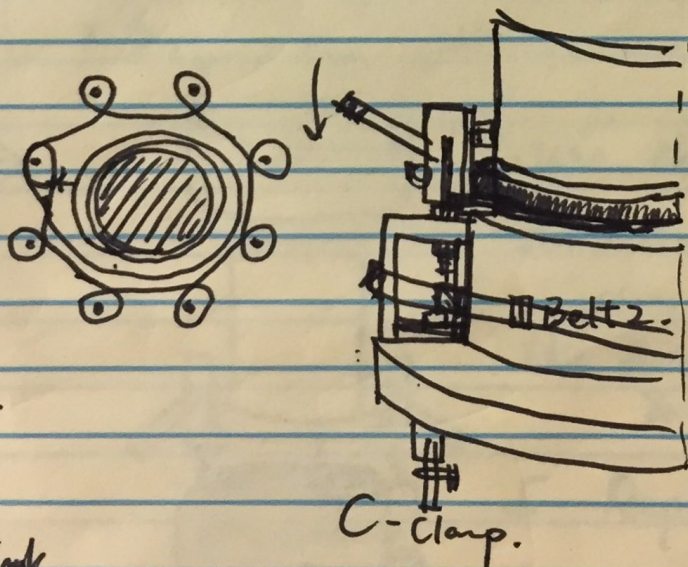


Fig. 2.

1. Clean the edge of the broken heat pad.
2. Try to pry with a screwdriver while another person is holding the tank.
3. Try to insert the tongue of the mini-jack

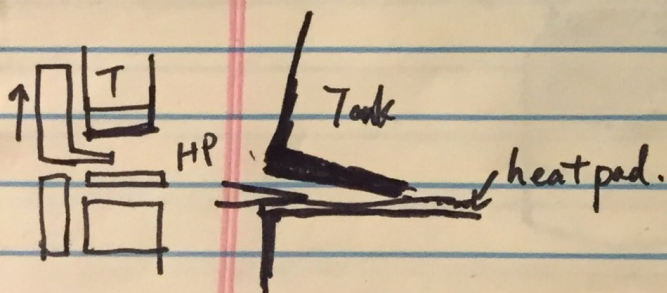
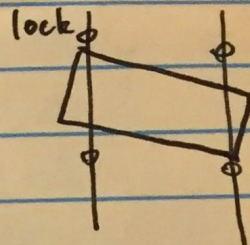
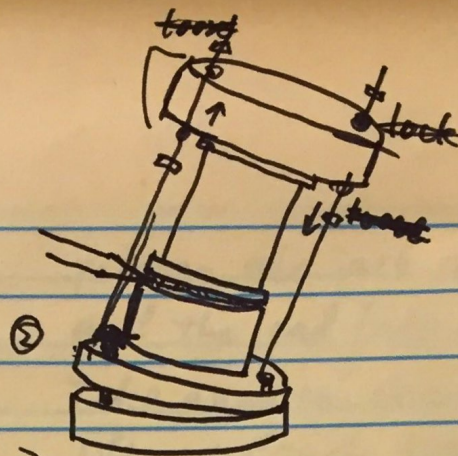
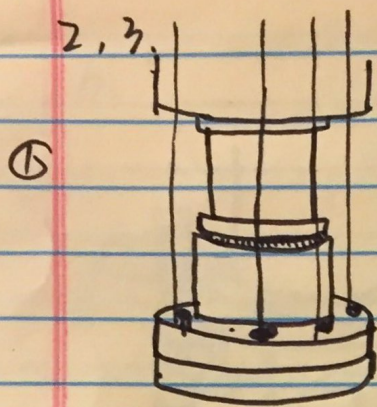


Fig 3.



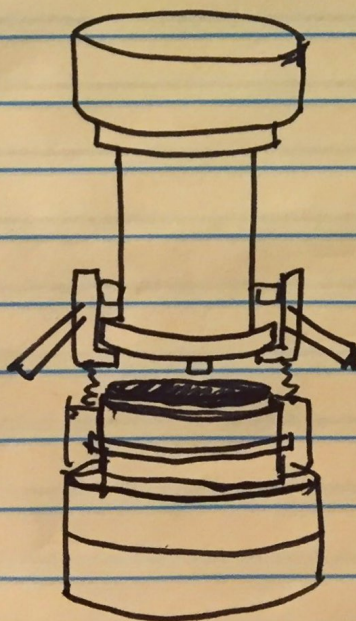
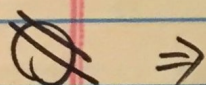
⑤ Same as ①



Try ~~to~~ (hammer)

Back to level.
put shim ~~intuse~~
in between.

x 3.



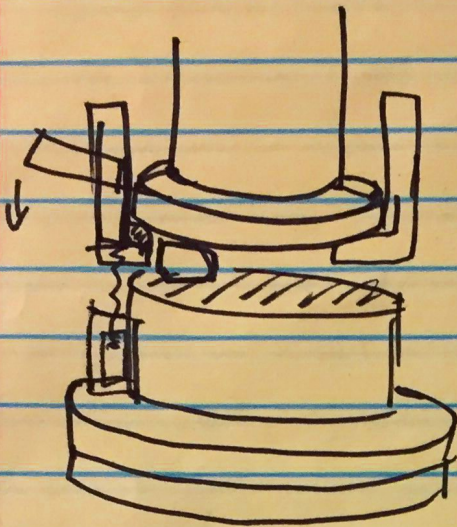
4. Use threaded rods to secure the system from tilting.

Use Belt 2 to secure the Blocks & clamps.

5. Replace the heat pad.

6. Place shim and release the jack.

6.



release the jack completely
and the load falls on shim.
Take away the shim while
lifting the jack, but do not lock.
(~~Try to~~ Apply thermal grease
Before hand)

7. Remove the mini jacks gently.

8. Redo insulations.