

# Disassemble the dome shutter drive

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# Preparation material

- Pully man
- Hand drill
- Wire rope (Dia. 5 mm)
- 1/2 inch combination wrench
- 9/16 inch combination wrench
- 3/4 inch combination wrench
- Small flat screwdriver
- Small phillips screwdriver
- Two long wooden bars
- Long cable tie
- Hanger bolt



# 0. Preparation work

- Insert 2 hanger bolts in the middle of 5 mm diameter wire rope
- Hang a large washer at the end of the wire rope into which the hanger bolts are inserted and tie it with a wire clip to prevent it from falling out
- Attach large washers to the end of another 5 mm diameter wire rope and tie it with a wire clip to prevent it from falling out

# 1. Rotate the dome to North side

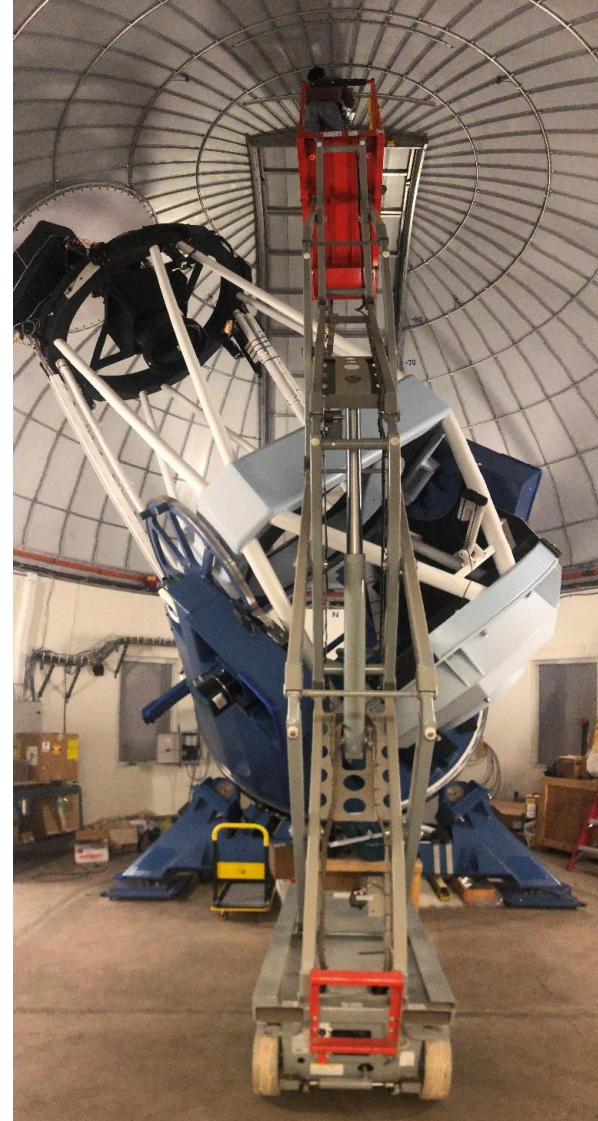
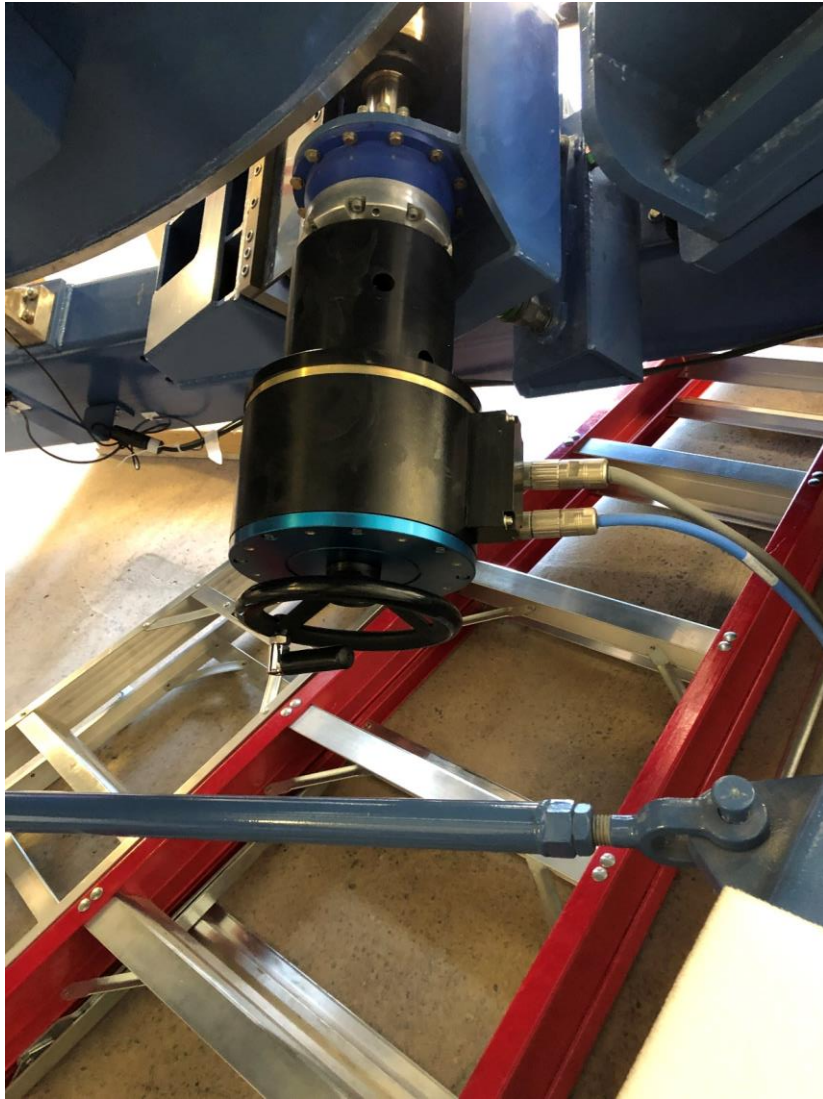
- Dome shutter has to be faced to North side and turn off the dome power switch





## 2. Move the telescope to West side

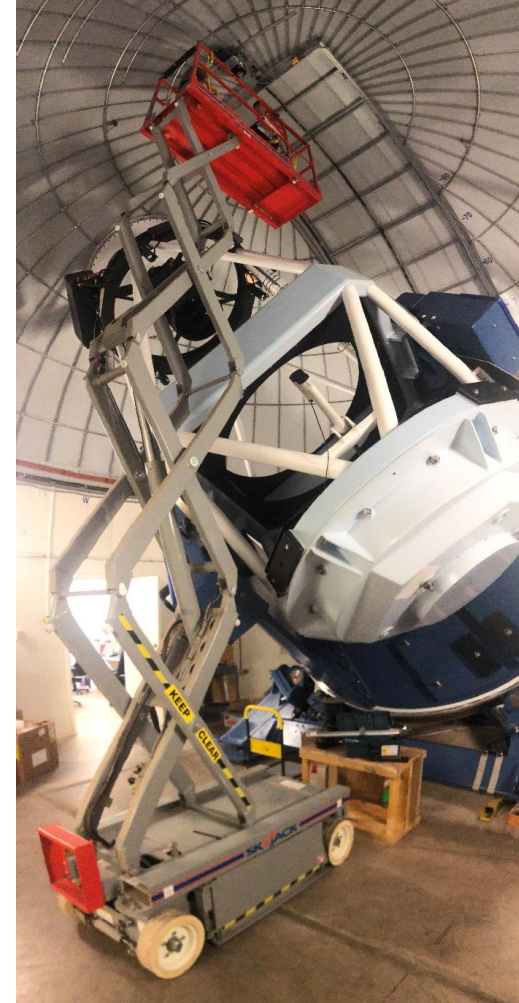
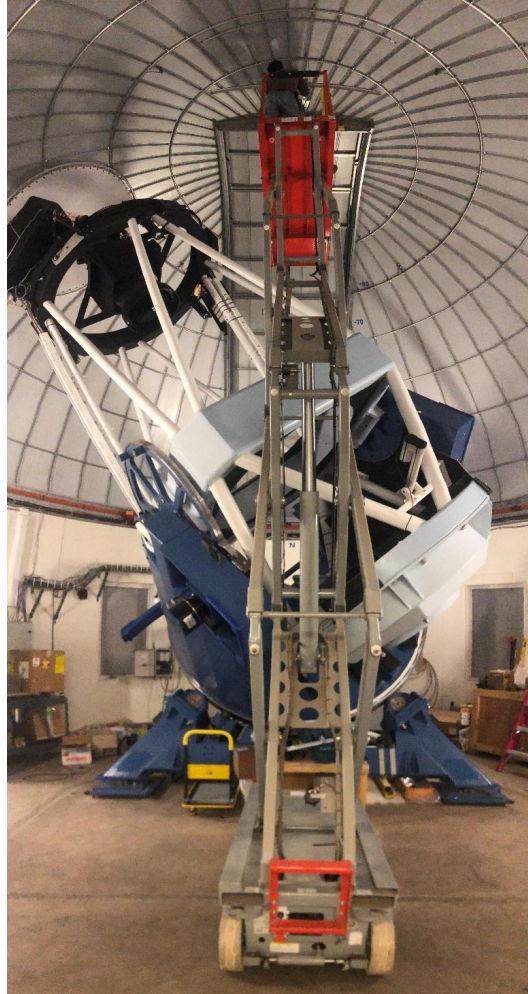
- Move the telescope to West side by handle on the motor





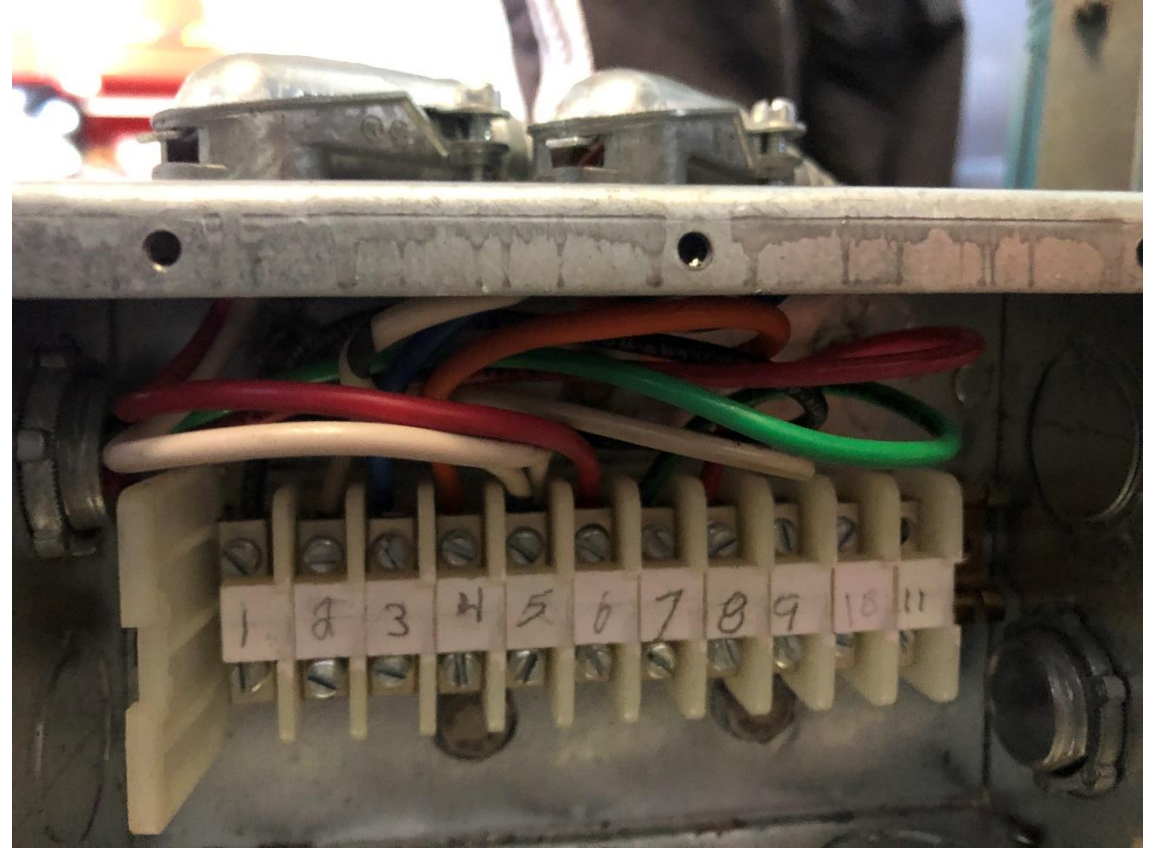
### 3. Locate the scissor lift to work

- Raise up the scissor lift
- Go slowly scissor lift to north until the lift does not touch the telescope

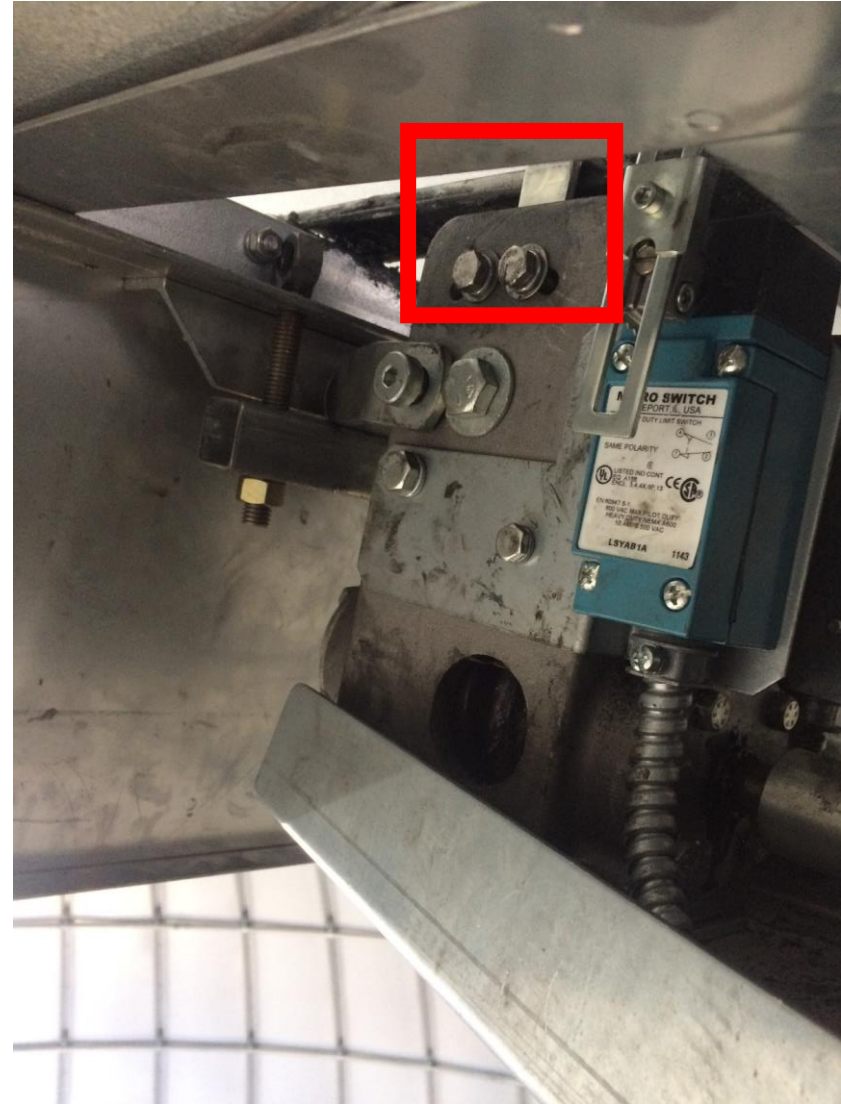
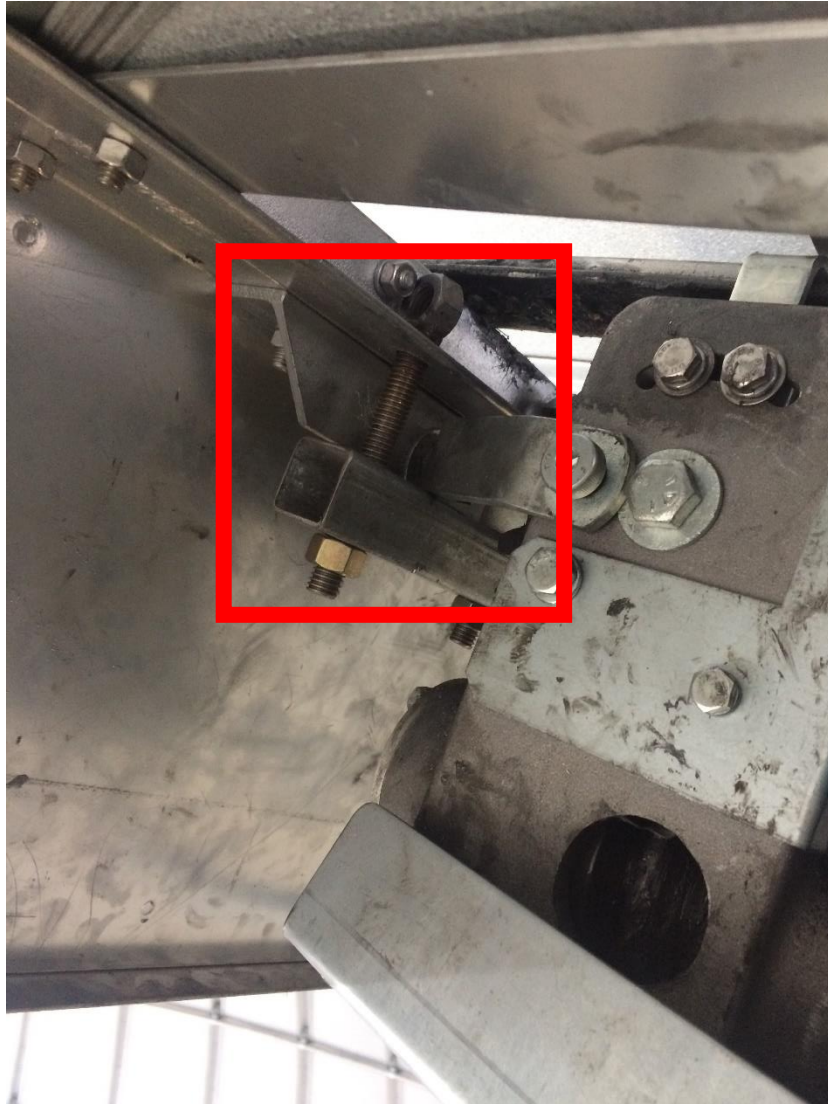




## 4. Disconnect the electrical wire



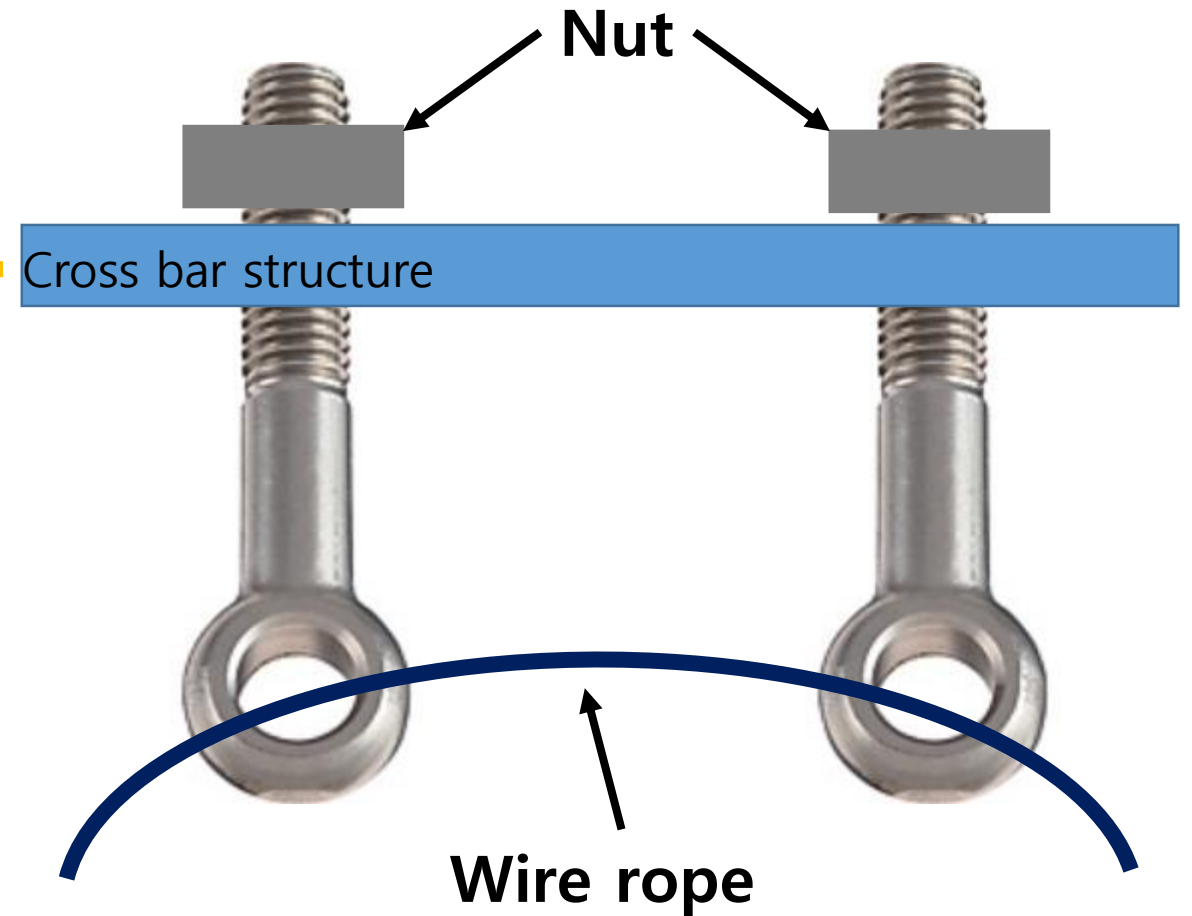
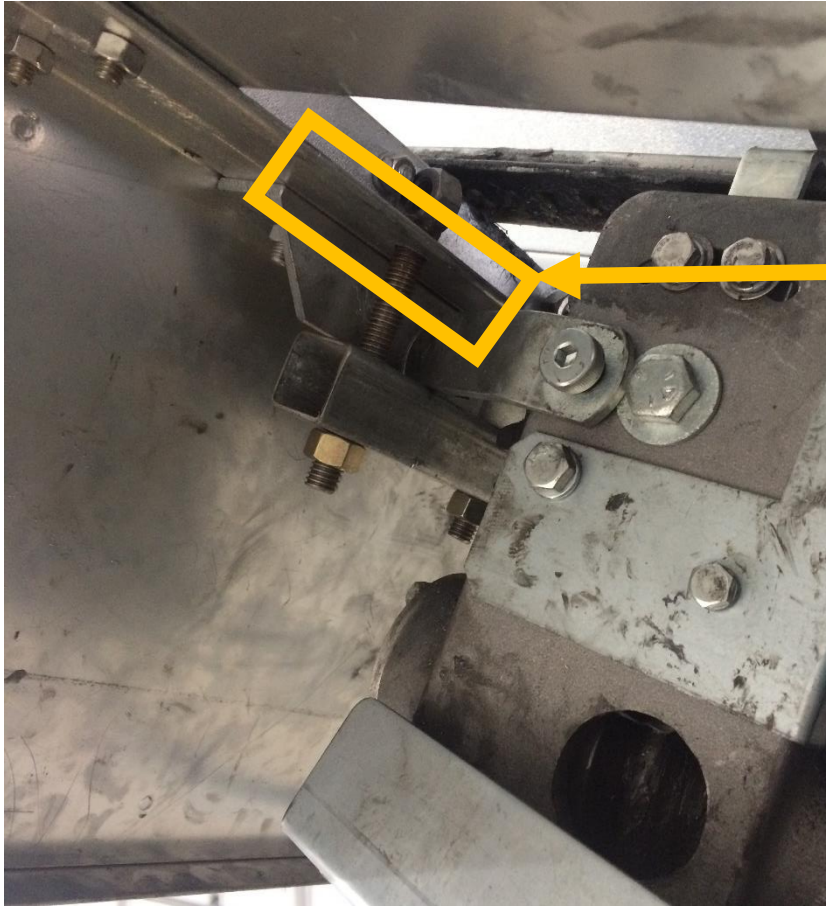
## 5. Remove the lifting part and shutter ears





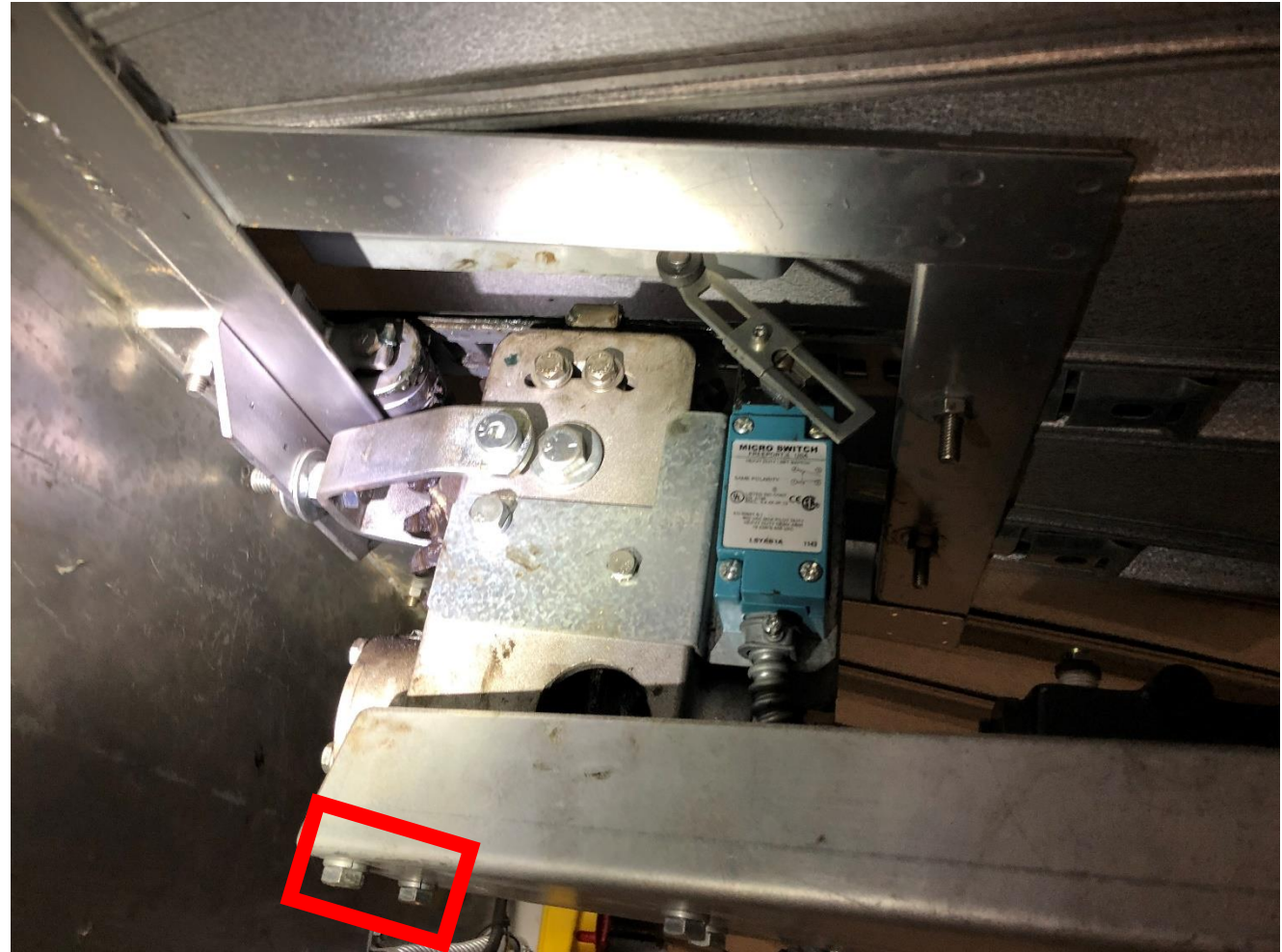
## 6. Assemble the hanger bolt to dome structure

- Assembling the hanger bolt in the place where the dome shutter lifting part is removed



## 7. Connect the front side of the shutter drive to wire rope

- Loosen the bolts holding the worm gearbox(as shown in the red box)
- Fasten the bolts with the washer connected to the end of the wire rope





## 8. Connect the end side of the shutter drive to wire rope

- Loosen the bolts holding the shutter driver(as shown in the red box)
- Fasten the bolts with the washer connected to the end of the wire rope





## 9. Connect the wire to pullyman





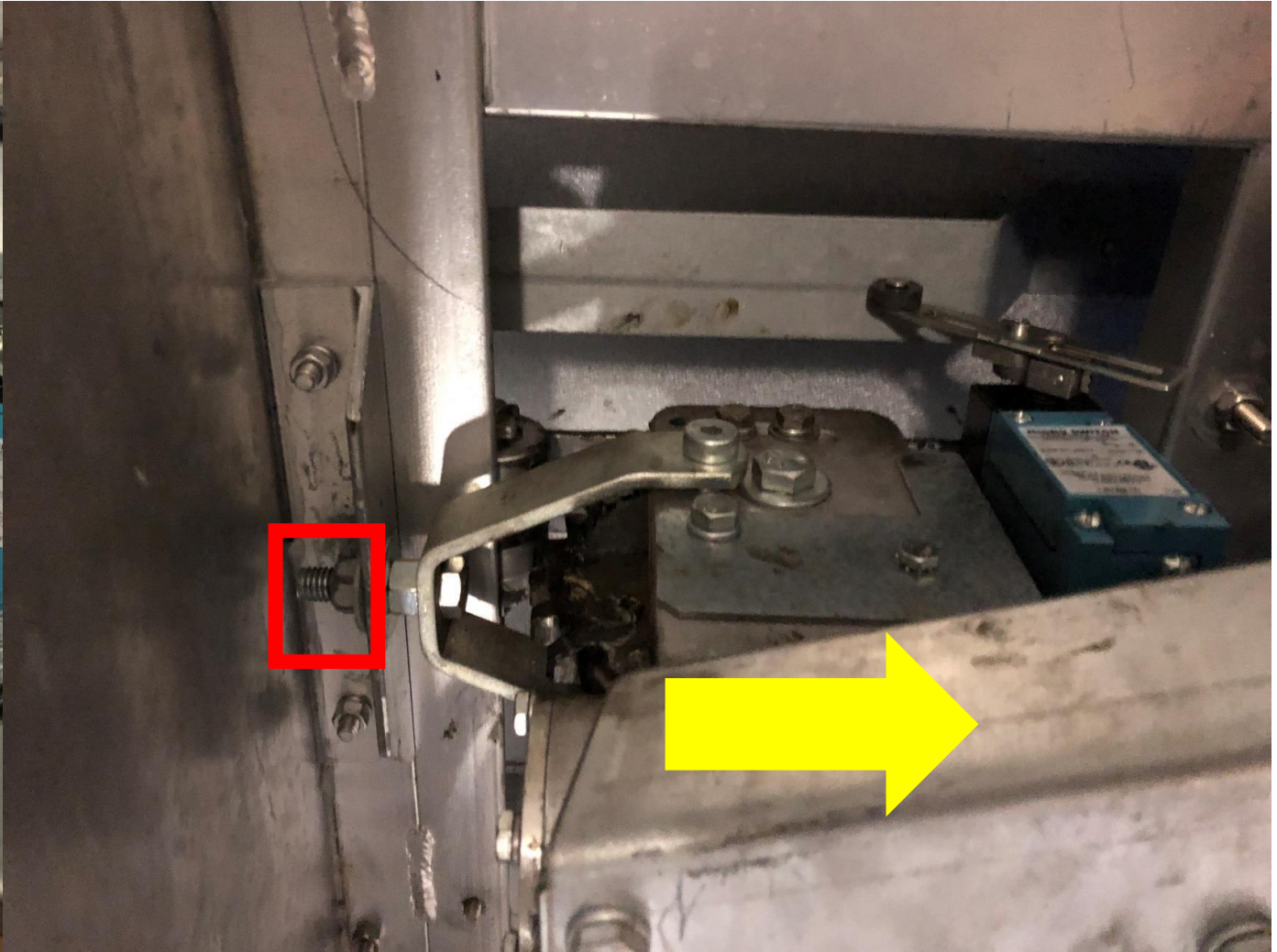
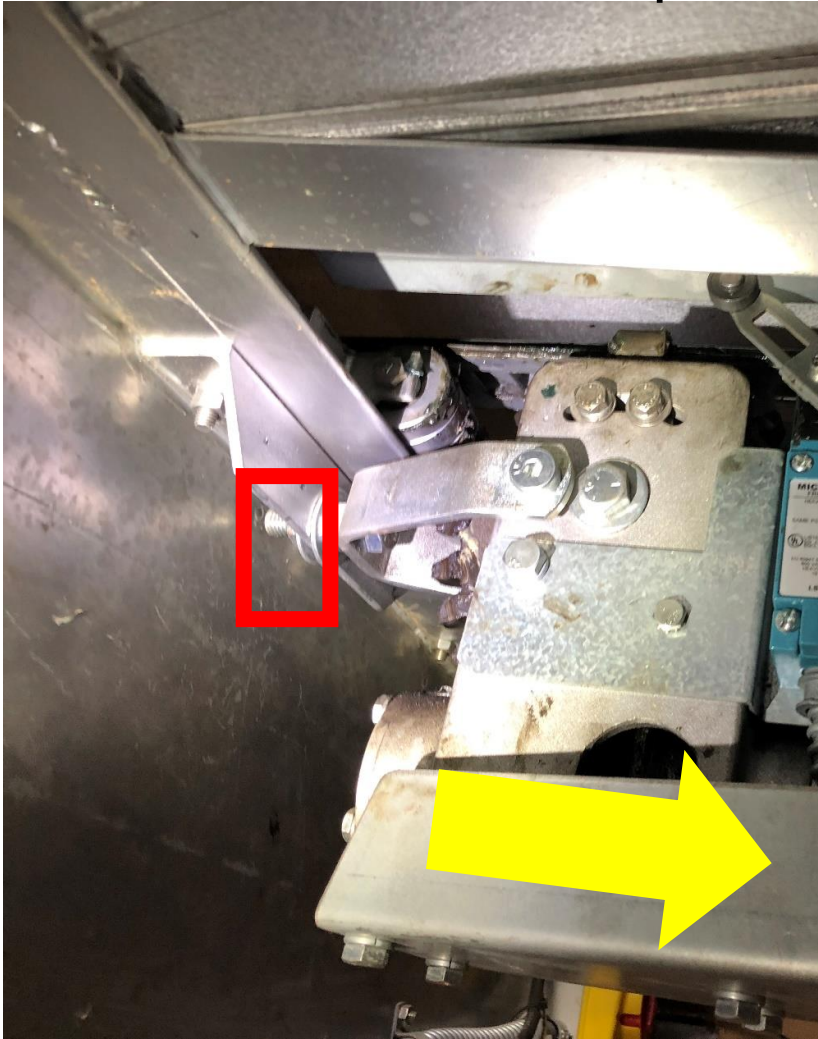
# 10. Pulling the wire ropes

- Pull the motor side wire using a pullyman
- Pull the worm gear side wire by hand



# 11. Unscrew a nylon nut

- Unscrew a nylon nut, and pull the drive to motor direction (yellow arrow direction) to pull it out





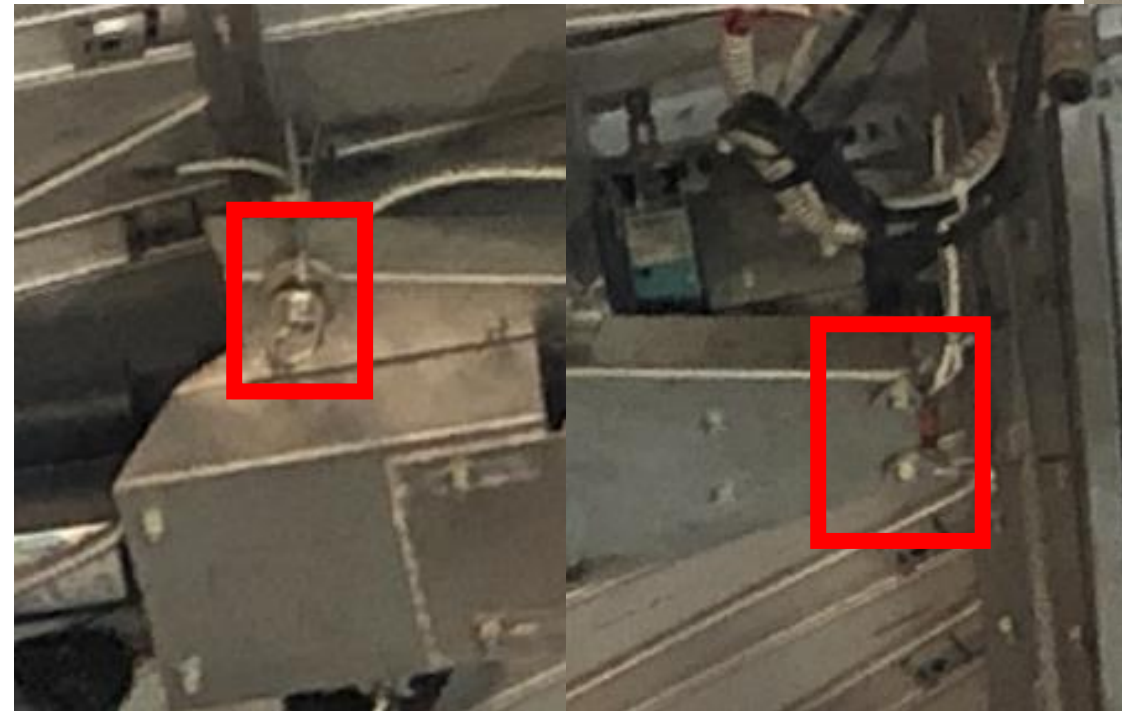
## 12. Lower the shutter drive





# 13. Disconnect the wire rope from shutter drive

- Disconnect both side wire ropes from shutter drive
- Then, the wires except the drive will be suspended from the dome





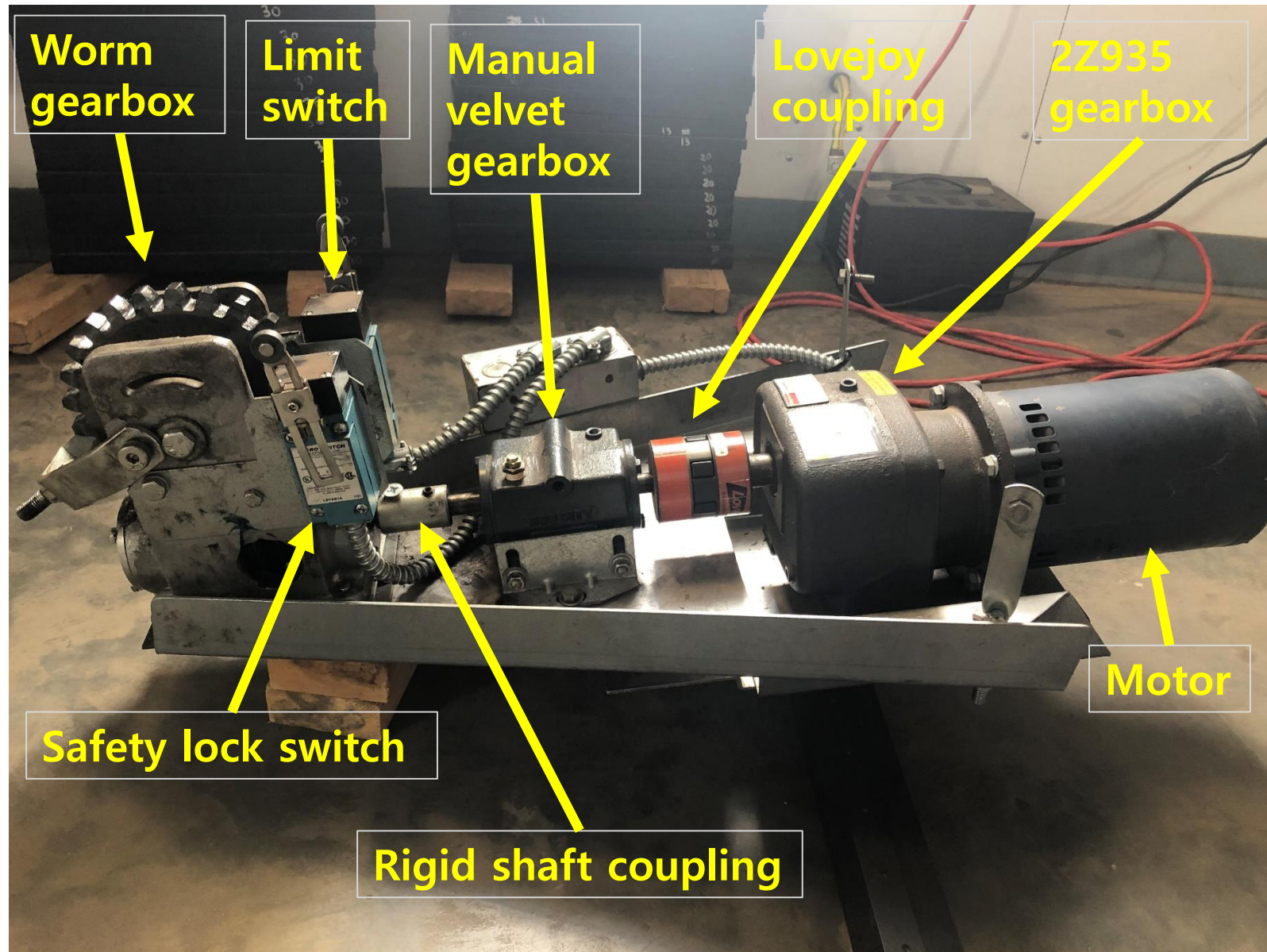
# 14. Go down the scissor lift

- Go slowly scissor lift to south until the lift does not touch the dome
- Let down the scissor lift to bottom





# Shutter drive





# Shutter drive parts in the dome

