

Bicycle Pump Vacuum Sealer

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Step 1 - Supplies



- New pump
- Scissors
- Pliers
- Duct tape
- Screwdrivers
- Inner tube
- Glue
- Pen
- Jars
- Tire valve stem

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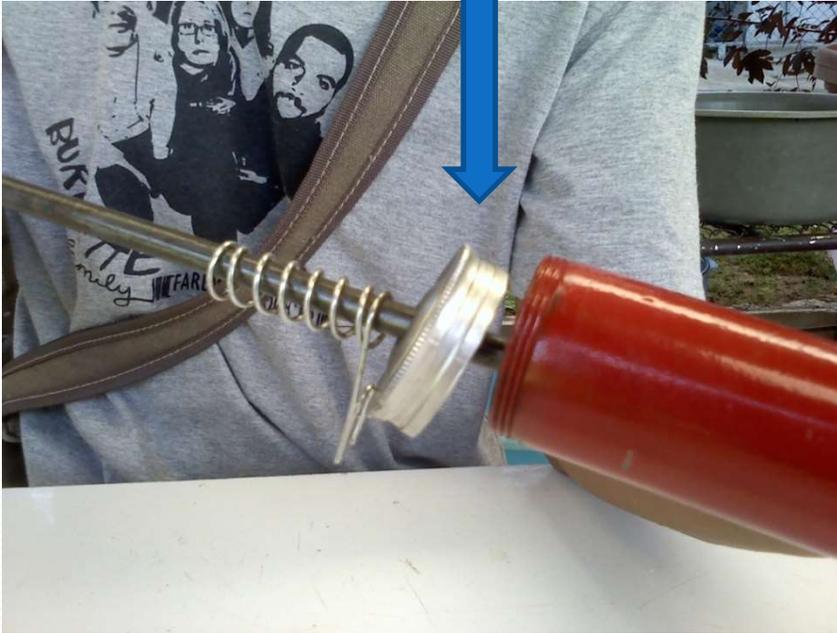
- Remove the tubing from the base of the pump
- This part will not be used
- We prefer to use different tubing for greater length



- Attach new tubing and glue using super glue or other strong glue
- Reattaching can be done two ways:
 - Using an empty valve stem (for larger tubing)
 - Inserting new tubing directly into hole (for small tubing)



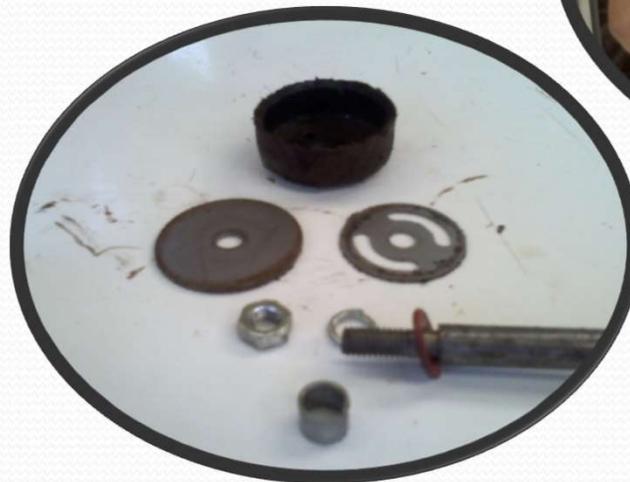
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- Remove the metal cap on the end of the pump

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- Remove nut, washers, and each plate of the pump



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- Screw the pump back together, this time with pieces reversed
- This has the effect of creating a vacuum when the pump handle is pulled upwards

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- Remove valve from a tire valve stem
- Unscrew the actual valve from the stem
- Car tire valves work well



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- Remove the nut from valve stem
- Reinsert the valve in the reversed orientation
- This has the effect of ensuring that evacuated air from the jar does not seep back into the jar with each stroke of the pump

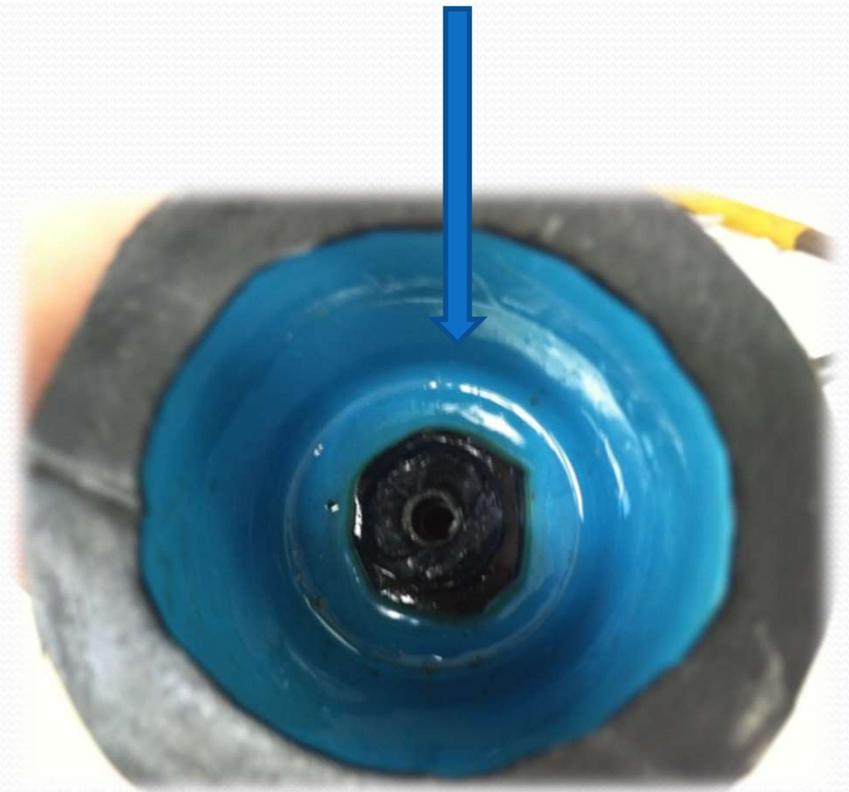
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- Drill or melt a hole in a PVC cap
- Screw the valve stem into the PVC cap
- Glue outside seam of PVC cap (we used elephant glue) for a tight seal



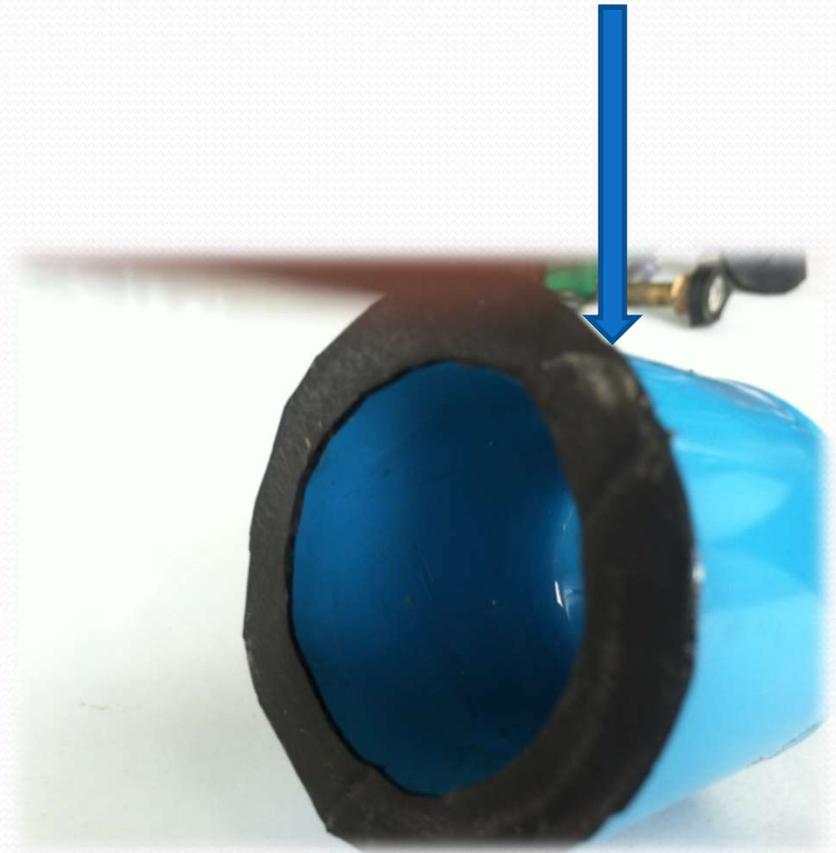
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- Seal seam inside with glue (we used PVC glue to melt inner tube rubber still attached to valve)



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- Cut a seal out of inner tube that fits over the PVC cap
- Glue the inner tube to the PVC edge
- This will create a tight seal with the jar



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- Attach pump tubing to valve stem
- Seal with glue (elephant glue)



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- Make a hole in jar lid
- It should be the size of a small nail



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- Place a piece of duct tape over the hole
- Do not tape hole shut before sealing
- Apply PVC cap over hole and tape, and draw upwards on bicycle pump
- Vacuum pump will close tape as the vacuum is made
- After evacuating the jar, quickly remove PVC cap, and tape will close the hole
- Added durability can be made by applying PVC cement to tape after creation of vacuum

The End Product

