

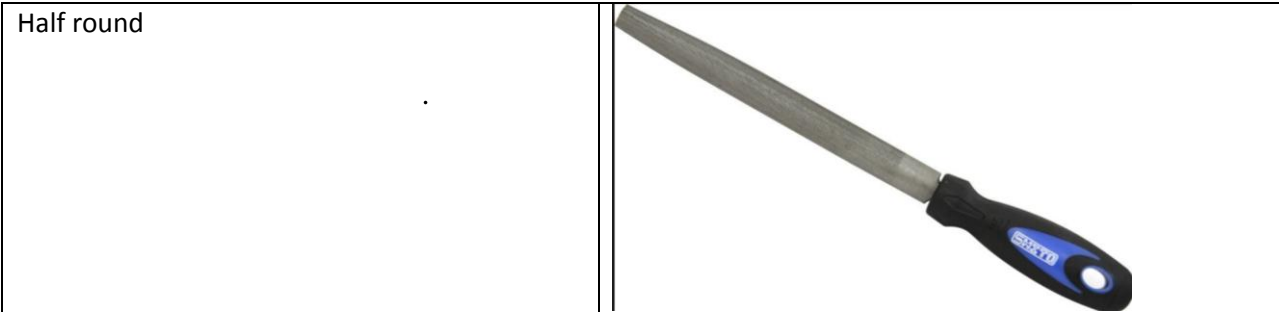
Tools for solar powered pump installation

Wire strippers	
Pliers	
Phillips head screwdriver	
Flat blade screwdriver	
Shifting spanner	
Yellow handle snips	

Tools for solar powered pump installation

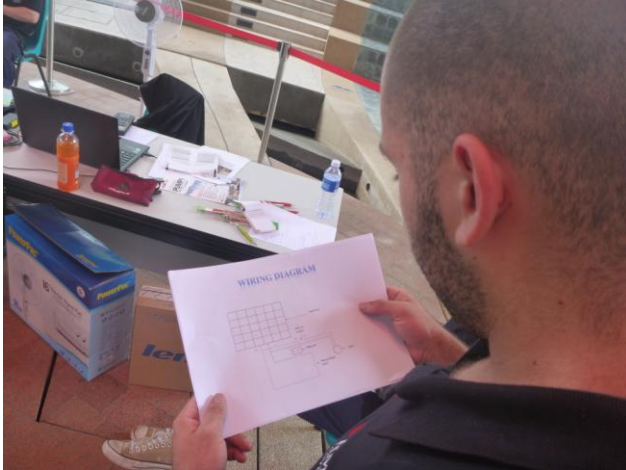
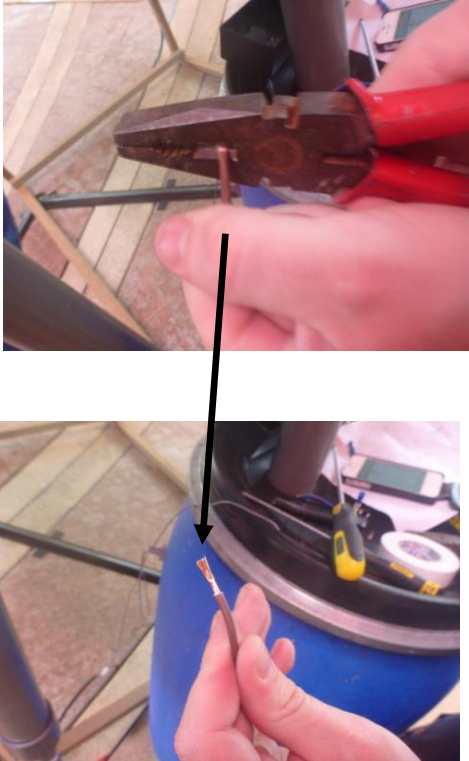
Power drill	
15 mm drill bit	
10 mm drill bit	
Rat tale file	
Multi meter	

Tools for solar powered pump installation



List of tools for the solar panel challenge

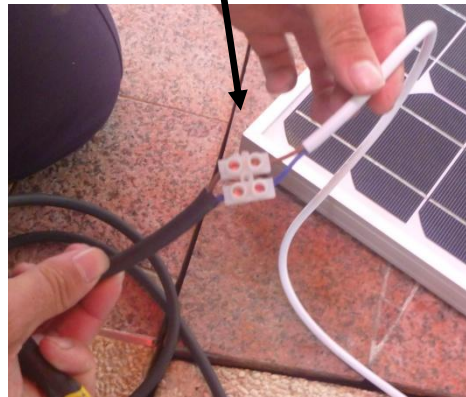
Installation of solar panel:

Activity	Image
Look at wiring diagram	 A person is shown from the side, looking at a piece of paper titled "WIRING DIAGRAM". The diagram is a grid with some lines and text. The person is in a workshop or office setting with various items on a desk, including a laptop, a water bottle, and some boxes.
Strip wires	 Two images are shown. The top image shows a pair of red-handled wire cutters being used to strip the insulation off a copper wire. The bottom image shows the same wire being held by a hand, with a black arrow pointing from the top image to the bottom image, indicating the progression of the task. The wire is being inserted into a blue component, possibly a terminal block or a connector.

Securing weather box to structure



Connect solar wires



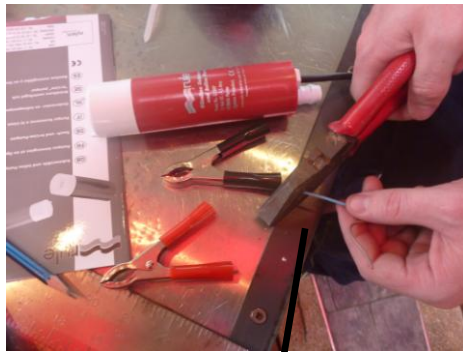
Insulate proof wires



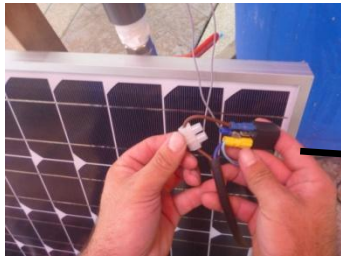
Position solar panel



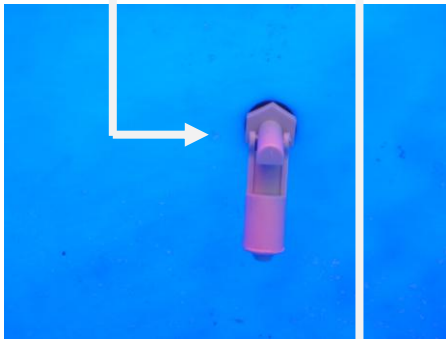
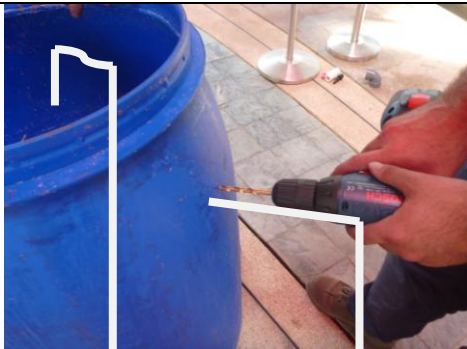
Use crimper to crimp wires



Connect solar wires to relay



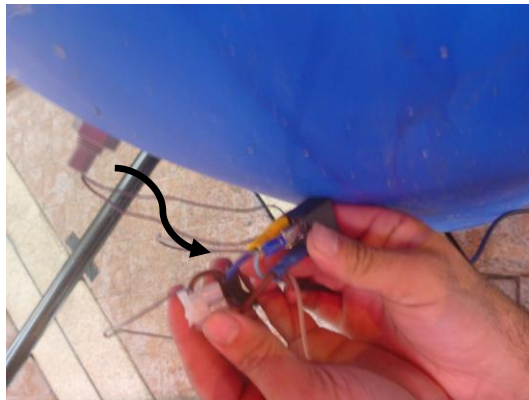
Install float switch



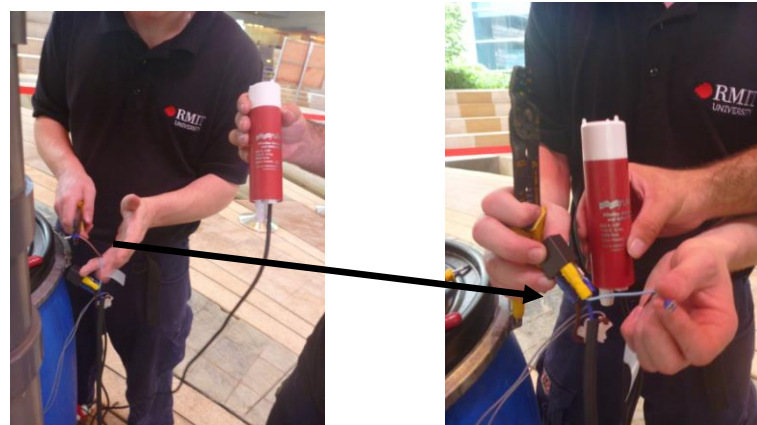
Seal Container

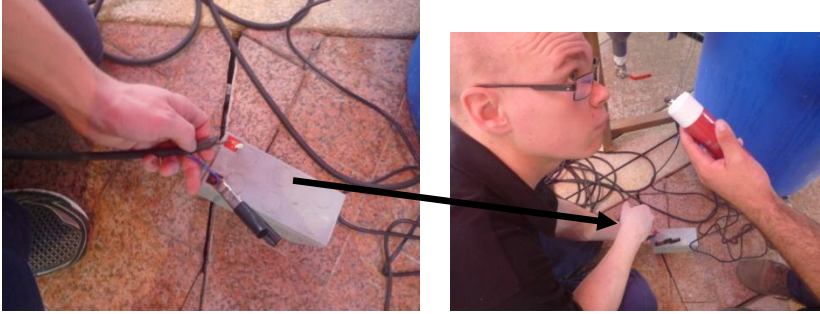
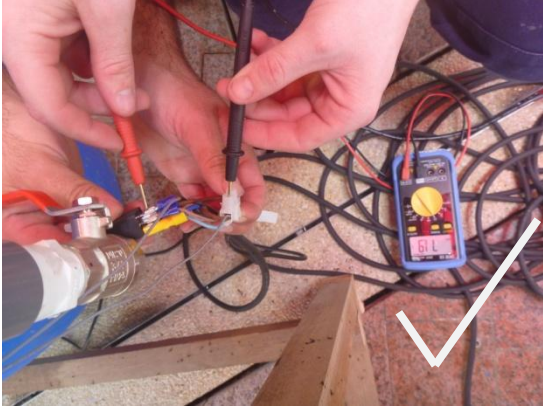



Connect wires from float switch to relay



Wire pump

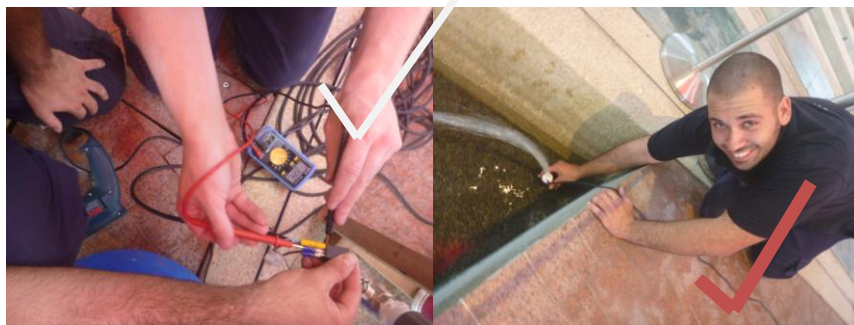


<p>Testing for voltage</p>	
<p>Ensure float switch is functioning</p>	
<p>Secure cable wires</p>	

Secure weather box



Test power to motor



Test system



Maintenance

Constant maintenance:

Check solar panels



Cleansing of solar panels



Half-yearly maintenance:

Clean filter

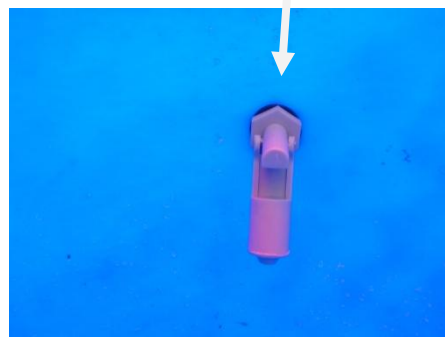


Check flow switch

1.)










2.)



Troubleshoot:

Issues with systems:-

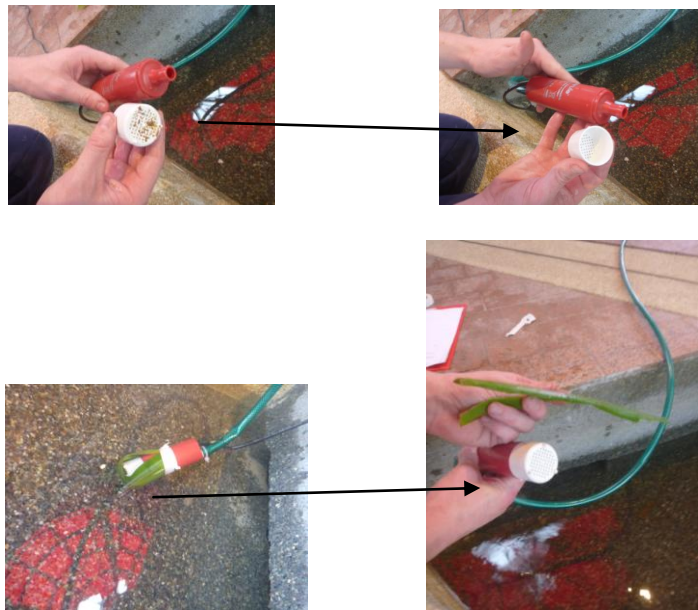
<p>1.) If No water</p>	
<p>Check for power</p> <ul style="list-style-type: none">-check solar panel isn't broken-check for sunlight-check with multi meter	 

	 
<p>Check cables</p>	   
<p>2.) If still not working. Replace Solar panel or wires</p>	<p>*draw</p>

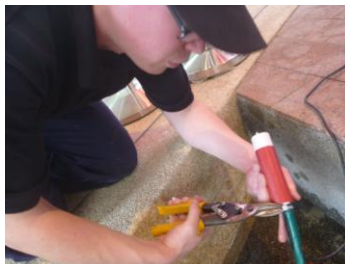
3.) If water pressure is low



Clean filter



Disconnect outlet of pump



Check outlet for water



Outcome 1:- no water:



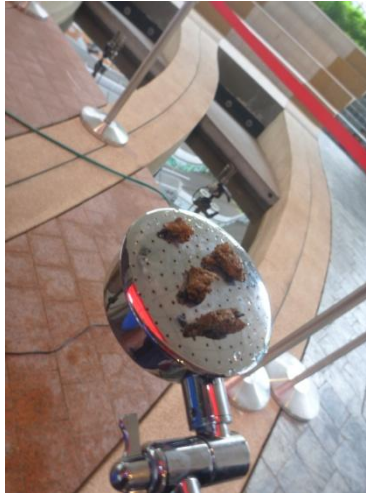
Damaged pump needs to be replaced



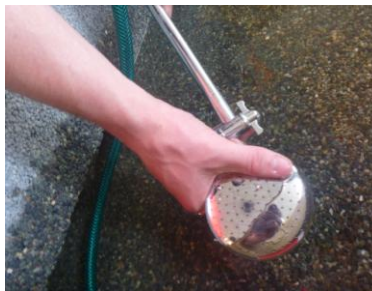
Outcome 2:- Water:



Shower head is blocked

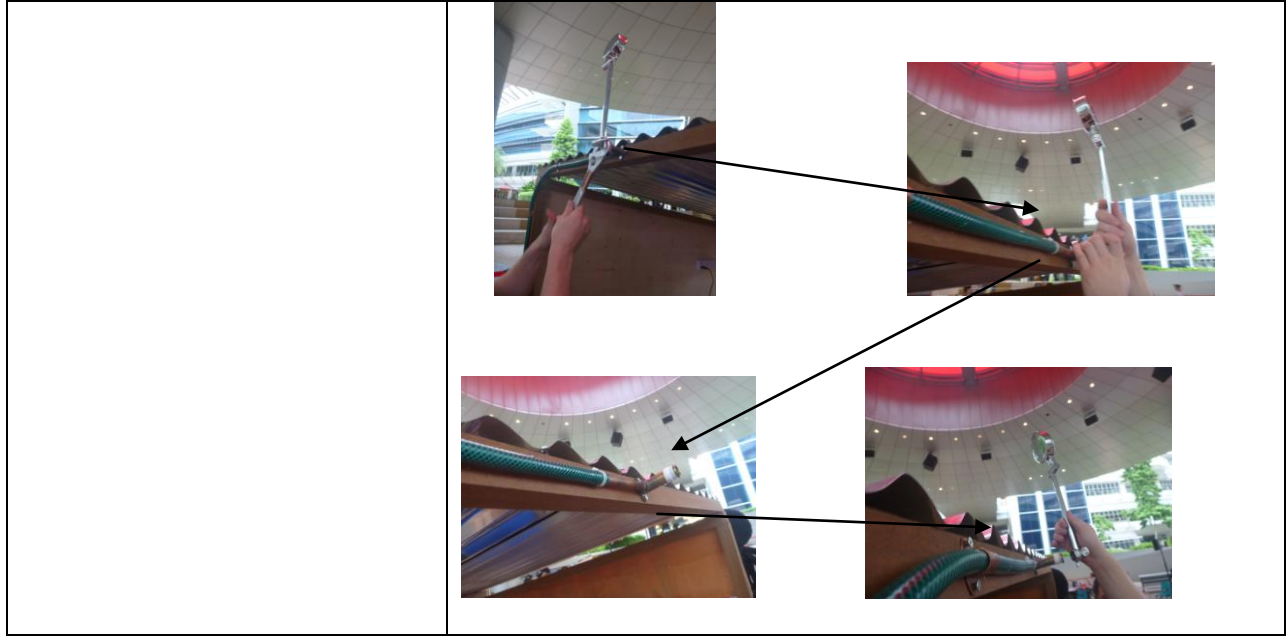


Clean head



4.) If cleaning head doesn't work, replace head





Potential work hazards:

Wires: slips trips and falls

Solution: sticky tape wires, put saddles to secure wires to structure

Stepping on solar panel: Burns and cuts

Solution: put signage, submerge feet in cold water if burnt, remove cuts glass and seal wounds

Electrocution:

Solution: seal all wire ends