Investigation of a bridge rectifier.

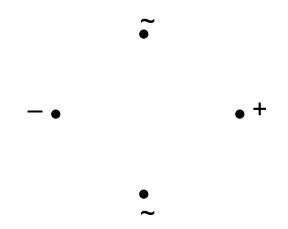
In the silicon diode investigation you may have found that a major use of diodes is to convert alternating current (from the mains electricity supply) to direct current which is used in electronic equipment. A device called a Bridge Rectifier is often used for this purpose. A Bridge Rectifier contains four diodes internally connected.



The four leads of a bridge rectifier are often labelled $\sim + - \sim$

(a) Use Squeekie to investigate a bridge rectifier.

Complete the circuit diagram below to show how the four diodes are arranged within the bridge rectifier.



Further investigations.

(b)	By using books or the Internet for research, explain:-		
	(i)	what is alternating current (a.c.)	
	(ii)	what is direct current (d.c.)	
	(iii)	how alternating current can be changed into direct current using a bridge rectifier.	
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(c)	By using books or the Internet for research, find out what is inside a diode and why it only allows electric current to pass in one direction.		
	Present your findings below and remember to reference your sources of information.		
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