Gel electrophoresis is a way to visualize the fragments according to their size: negatively charged DNA will move towards the positive electrode the red electrode, but smaller fragments will move further quicker, creating bands. Imagine the gel to be a massive mesh: smaller fragments are able to navigate through the mesh easier and faster than larger ones.

1. Add the lid, add the electrode, black to black for negative charge, red to red for positive charge, and connect these to a power pack. You would then turn on the power pack to 100V, and leave for 30 mins.
2. The gel tray is stained with a blue dye to visualize the DNA which has moved across the Gel. The stain physically binds to the DNA to visualise it.
3. Hold it with fingers curled around the edge, and thumb pushing down on button.
4. Push the micropipette into one of the tips FIRMLY
5. Push the button down until you feel some resistance BEFORE putting the tip into the solution you want to take up. Put the tip in the solution but not to the bottom of the glassware. Lift out.
6. To release its contents, push the button the whole way down.
7. Tips: try not to get bubbles in the tip as then the wrong amount will be measured.
8. Every time you use a new solution you need a new tip to avoid cross contamination, so you push the smaller button to eject the tip straight into a biohazardous bin.
9. Put the gel in the gel tray. Cover with buffer solution enough to cover the wells of the gel.
10. Then you would put your loaded sample into each separate well in the gel: its tricky as you have to go beneath the surface of the buffer to reach them but not stab through the bottom of the gel. In the real experiment you would also add controls to the first three rows to then compare your DNA to a known result, marking exactly what had gone in each row.