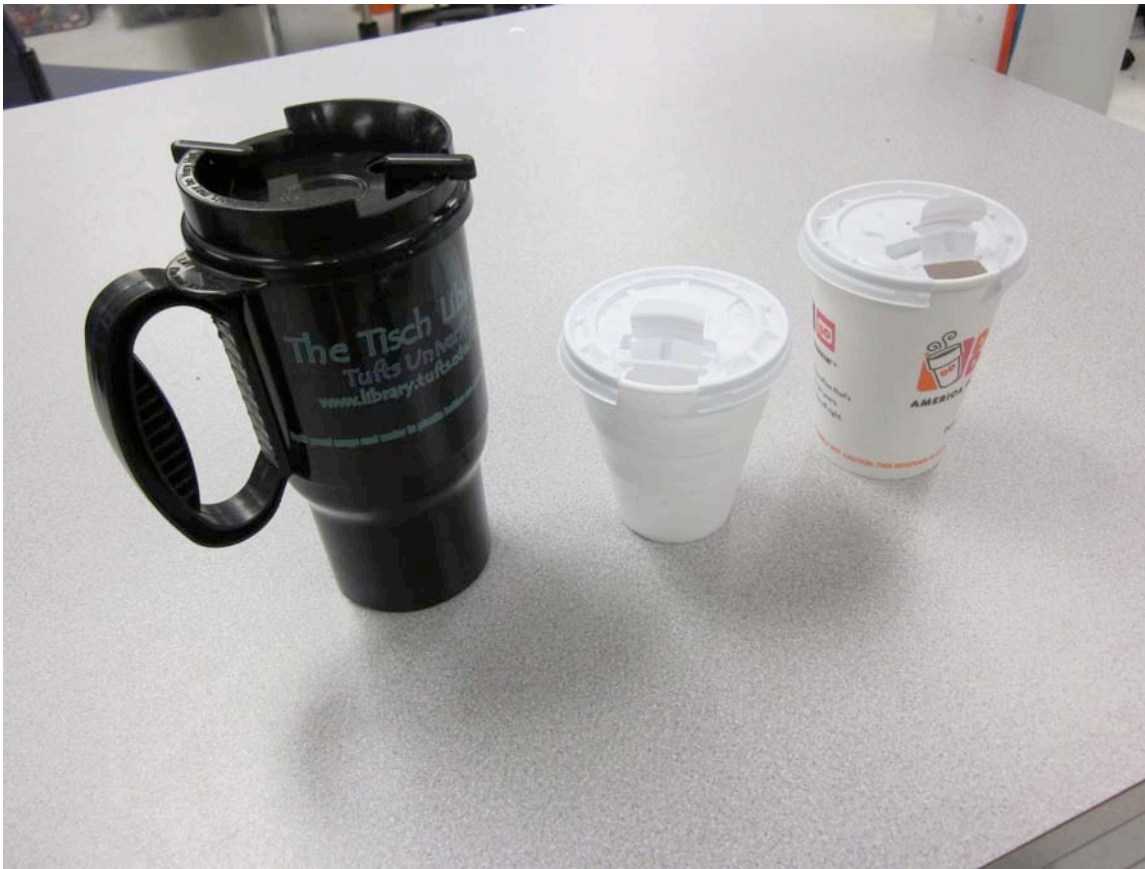




The method of heating water in a beaker and then pouring it into each of the cups provided some room for error. Firstly, it was difficult to get exactly the same amount of water into each of the cups, since there was only a hand-drawn line on the cup indicating when to stop. This could be avoided by using three separate beakers, each with the correct amount of water, waiting for them all to boil and dumping them into the cups at the same time. Another possible alteration could be to perform the experiment at a more real-life temperature, rather than with boiling water.

The apparatus used for this experiment consisted of a cardboard box with the NXT temperature sensor cords taped to it. Any apparatus that holds the sensors in the water will work for the purposes of the experiment. Care must be taken, though, to ensure that the apparatus does not impede or accelerate the cooling process of any of the cups.





The choice of cups for this experiment was based on the resources available. It was interesting to have both a Styrofoam cup and a plastic cup, since there is some debate over which is the more environmentally friendly choice. The plastic mug was chosen so that there could be some contrast to the disposable cups. In future experiments, any kind of cup would provide interesting results. One possible outlet for an experiment could be whether a bigger or smaller cup insulates better, or how many paper cups would need to be stacked, one inside another, to equal the insulating efficiency of a Styrofoam cup.