## MILK FROTHER DESIGN TASK

Upper management has put your team in charge of developing a concept for a *new innovative product that froths milk in a short amount of time*.

Frothed milk is the warm, pourable, virtually liquid foam that tastes rich and sweet. It is an ingredient in many coffee beverages, especially espresso-based coffee drinks (Lattes, Cappuccinos, Mochas). Frothed milk is made by incorporating very small air bubbles throughout the entire body of milk through some form of vigorous motion. As such, devices that froth milk can also be used in a number of other applications, such as for whipping cream, blending drinks, emulsifying salad dressing, and many others. Importantly frothed milk should be between  $150^{\circ}$  and  $160^{\circ}$  because above  $160^{\circ}$  the proteins in the milk start to breakdown causing sugars to be released which ultimately changes the flavor of the milk.



The design your team develops should be able to be used by the consumer with minimal instruction. It will be up to the board of directors to determine if your project will be carried on into production.

Once again, the goal is to develop concepts for a new, **<u>innovative</u>** product that can froth milk in a short amount of time. This product should be able to be used by the consumer with minimal instruction.

## IDEA GENERATION INSTRUCTIONS

Sketch your ideas in the space provided in the idea generation sheets. As the goal of this design task is not to produce a final solution to the design problem but to brainstorm ideas that could lead to a new solution, feel free to explore the solution space and focus on both the form and function of the design in order to develop innovative concepts. In other words, generate as many ideas as possible- do not focus on the feasibility or detail of your ideas. You may include words or phrases that help clarify your sketch so that your concept can be understood easily by anyone.

For clarity, please use the provided pen to generate your concepts (ie: do not use pencil). Your participant number is included on each of the provided idea generation sheets. Generate one idea per sheet and label the idea number at the top of the sheet.