Our aim for the project is to create a cup which measures the volume of water being drunk and how hot the liquid is. Our cup should be waterproof, so the water doesn’t interact with the wiring and pi and break it. It should be renewable to cut down on plastic pollution in the world. It the battery should also be rechargeable, so once it runs out of battery it can be recharged and effectively reducing waste and disposable single-use bottles.

The problem we are trying to solve is dehydration and we are trying to stop people burning the roof of their mouths as this can lead to mouth cancer. We will use emojis as it will appeal to the younger generation, and it will be more fun for them to use, and they can show it off. Drinking too hot drinks can cause damage to their mouths’ and will hurt them. This is bad, so we are trying to improve the health of the younger generations.

We will make our cup prototype with an inside metal cup from a reusable bottle, and we will make the outside of the cup by 3d printing it. On the front there will be a LED screen and a black button underneath which when pressed the appropriate emojis will be displayed on the screen. This will make it user friendly and fun to use. On the back, the raspberry pi will be attached with the wires soldered to it on the inners of the cup. There will be a red button on the underside which can turn the cup module on and off. We will use a raspberry pi, to control the temperature sensor and the flow sensor. We will use python to code the pi, and to connect all of the parts together as one. On the underneath we will have our logo, so it is branded and we can take pride in our module. Our module will be easy to use so teenagers will be able to use it without setting off their anger issues and will not rage quit.