For the Spring 2015 Introduction Program, exchange students were given a task: to design a water rocket that remains airborne for the longest amount of time. Each team in the Water Rocket Competition where given a handful of materials. Zwolle 1 was able to complete this project and produce an exceptional rocket capable of sustained flight.

Various materials were utilized in the creation of this rocket including soda bottles, garbage bag, string, paper plates, and adhesives. Additional tools needed were scissors, stapler, box cutter, and pens. The first step was creating drawings on paper and looking at various ideas for creation. Next, steps of manufacturing were discussed. The first step of construction was combining the bottles by cutting and taping to form the body of the rocket. Second, fins were cut out of cardboard to match the profile of the body. Then the fins were attached to the body using tape and glue. The nosecone was made from a paper plate that had a slice cut out and then twisted to be conical. Parallel to this construction was the development of the parachute by cutting a circle from the trash bag and then attaching strings. These strings and the nosecone were attached to the bottles using tape at 25% on the body.

As a team, Zwolle 1 was able to work together in order to build the “Poncho”. Ideas were readily available and compared to produce the best project. By discussing different ideas and previous experiences we were able to work together successfully.

In future iterations of this project we would use additional supplies to open up the number of ideas that we could readily utilize. Of utmost importance would be a mechanical device to deploy the parachute, which we were unable to build and thus utilize.

Overall, we believe this experience readily prepared us for our experience at Delft where we will work with a variety of cultures.