

Project Title

Ana Villa, Hermosa middle school, Farmington, New Mexico

Project ID#

Q1: Research Question/Engineering Goal

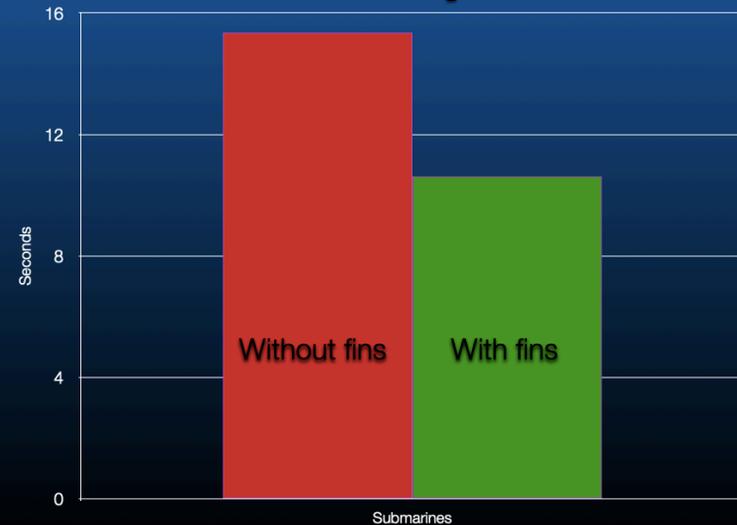
Does the size of a submarine affect the speed?

Q2: Methodology/Project Design

Since I wanted to make the and the propellers I decided to use a soda bottle to make the propellers. So after I cut everything that I needed to and measured everything. I put it on the main submarine which was water bottle. After I did that I put it in my tub which I had a choice to either put it in a pool but since I don't have one I had to use my tub. So after I did all of that I started to start my experiment and so what I did I left the fins on and let it go. Then I took off the fins. After that I timed it to see how fast it would go. After I did all of that I then collected my data and wrote it down to see if submarines needed fins.

Q3: Data Analysis & Results

Graph



Q4: Interpretation & Conclusions

My hypothesis/goal for this project was **if** we take the fins off the submarine **then** the model with fins will travel better **because** it had more control to go straight. My hypothesis was supported. The data shows this because when the submarine did not have the fins it did not have balance for it to just go straight. When the submarine had fins it had way more control and balance for it to go straight and not in circles. If I were to do this project again, I would try to make it balance a little more because it was not really balance that well. It is important that people know more about this topic because not that many people know so much about submarines and they don't know if submarined do need fins or not so is they were to read this project they would know the answer.

