|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Roto Version | **Control Group** | | **Increased 0.5cm** | **Increased 1cm** | **Increased 1.5cm** |
| Rotocopter | **1.1** | **1.2** | **2** | **3** | **4** |
| **Test 1** | 0.68 | 0.61 | 0.59 | 0.66 | 0.60 |
| **Test 2** | 0.72 | 0.68 | 0.64 | 0.68 | 0.57 |
| **Test 3** | 0.69 | 0.56 | 0.67 | 0.74 | 0.56 |
| **Test 4** | 0.75 | 0.59 | 0.69 | 0.62 | 0.65 |
| **Test 5** | 0.71 | 0.53 | 0.71 | 0.68 | 0.65 |
| Avg. Per Ver. | **0.71** | **0.594** | **-** | **-** | **-** |
| Average | **0.652 seconds** | | **0.66 seconds** | **0.676 seconds** | **0.606 seconds** |

1. Cut out and create 2 of the predesigned rotocopters. This will be the control group. Label one 1.1 and the other 1.2.
2. Cut out 1 rotocopter, but with a 0.5cm increase on the overall dimensions of the rotocopter from the control group. Label it #2.
3. Cut out 1 rotocopter, but with a 1cm increase on the overall dimensions of the rotocopter from the control group. Label it #3.
4. Cut out 1 rotocopter, but with a 1.5cm increase on the overall dimensions of the rotocopter from the control group. Label it #4.
5. Set up the area to do the testing. Create a 1m point off the ground with a meter stick. Have at least have a 4m diameter circle clear of anything that might interfere with the testing. Also make sure that there is no sporadic wind circulation in the room that will impact the flight duration of the rotocopter.
6. Position the control group rotocopter above the 1m point so that the bottom of it is on the point. Let go of it and start the stopwatch. Stop the stopwatch when any part of the rotocopter touches the ground. Repeat 4 more times. Record the results in a table.
7. Repeat step 6 for all the rotocopters.
8. Analyze your data.
9. 4 Sheets of Stiff Paper
10. Pen
11. Ruler
12. Meter Stick
13. Stopwatch
14. An open area
15. Scissors