

Bryn Joyner
9/20/11
Mr. Heerschap
Physics

Whirlybird Lab

Purpose: To measure vertical velocity (fall rate) of two unique whirlybirds.

Materials: A piece of paper, a paper clip (optional), scissors, pencil, and stop watch.

Procedures: See lab manual pages 1-7.

Data Results:

1. Our whirlybird rotated counterclockwise. It fell counterclockwise every time we dropped it.
2. To switch the rotation of the whirlybird you have to flip the “wings” of the whirlybird. It should go the other way.
3. When we used the paper clip the whirlybird went faster than without the paper clip.
 - Height of drop= 240 cm

Data Table 1

Trial	Time for Fall (s)	Speed (cm/s)
1	1.76 s	136 cm/s
2	1.39 s	173 cm/s
3	1.20 s	200 cm/s
Average	1.45 s	170 cm/s

Data Table 2

Trial	Time for Fall (s)	Speed (cm/s)
1	1.17 s	205 cm/s
2	1.21 s	198 cm/s
3	1.25 s	192 cm/s
Average	1.22 s	199 cm/s

4. We were successful in changing the speed. You can increase or decrease the vertical speed depending on how many paperclips are on the “tail” of your whirlybird.
5. We weren’t very successful in changing the rotation speed. You can increase and decrease the rotaion speed.
6. A man made object that a whirlybird reminds me of is a helicopter. A natural object would be a seedling helicopter.
7. That you can change the speed of a falling object if you add more weight to that object.