**Responses**

* Rate of Flight Time (cm/s) – PRIMARY
* Accuracy (Distance landed from target)

Note: Stability is to be considered too, but not directly evaluated

**Experimental Factors**

* Rotor Length
* Rotor Width
* Nose Length
* Up to us to determine minimum and maximum settings (recommended to use a few trials to determine these – DO NOT INCLUDED AS DATA)
* Must fit within an 8.5 x 11 sheet of paper
* 23 Full Factorial Design
* Minimum drop height: 10 ft
* The three experimental factors are the only things varied in the experiment

1. Paper Weight – CONSTANT: Regular copier paper, heavier paper, etc.
2. Paper Clip – CONSTANT: Use one
3. Nose Length – VARY: between a high and low
4. Nose Width – CHOOSE
5. Rotor Length – VARY
6. Rotor Width – VARY
7. Block Length – CONSTANT
8. Block Bevel – CONSTANT: Hold at 90 deg (no bevel)
9. Rotor Bevel – CONSTANT: No bevel
10. Rotor Struts – CONSTANT: No struts/supports

**DoE**

* Subsampling? No required, if we do it then it is recommended we take the average of subsample drops for each replication
* Analyze flight time and accuracy separately
* Would recommend measuring accuracy in absolute deviation