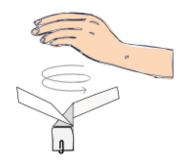
## Engineering Contest Long Night of Art and Innovation



## October 12<sup>th</sup> 2017 Riverside California

Design and Test a "Paper Helicopter" using the following materials (supplied on site)

- 1) One sheet of printer paper (8 1/2" x11"). Weight of paper to be given by email upon electronic registration according to the following division schedule (below)
- 2) One jumbo paper clip (approximately 5cm x 1cm) Scissors will be provided on site.

A non-optimal design which gives the science and engineering principles can be found at <a href="https://www.scientificamerican.com/article/make-a-whirlybird-from-paper/">https://www.scientificamerican.com/article/make-a-whirlybird-from-paper/</a>

The winner will be determined by the **slowest measured time** to descend 4 feet through a 12 inch or larger diameter tube. The craft must complete at least 1 rotation.

Test stand with timing measurements will be provided by CBU the night of the contest.

Contestants are encouraged to design and test prototypes at home, however, the night of the contest they will work alone and have to construct the craft from supplied materials on site.

Contestants must register by sending an email to the appropriate address below anytime after the date and time indicated up to noon on Oct 12<sup>th</sup>.

Division 1) College and above – noon on October 10<sup>th</sup> email to <a href="mailto:cbucoe1@calbaptist.edu">cbucoe1@calbaptist.edu</a>

- 2) High School- Friday October 6<sup>th</sup> email to <u>cbucoe2@calbaptist.edu</u>
- 3) Below High School September 12<sup>th</sup> email to <u>cbucoe3@calbaptist.edu</u>

Contest start time and location will be provided upon registration.

Top ten in each division will win a T-shirt.

Tiebreaker will be based on responses to questions about their design. (All judges decisions final.)

Contest **award winners** will receive an RC helicopter. Division 3: \$20-50\$ plus 25\$ gift card, Division 2: \$50-\$100 plus 75\$ gift card, Division 1: above \$100 plus 150\$ gift card.

For additional questions contact cbucoecontest@calbaptist.edu