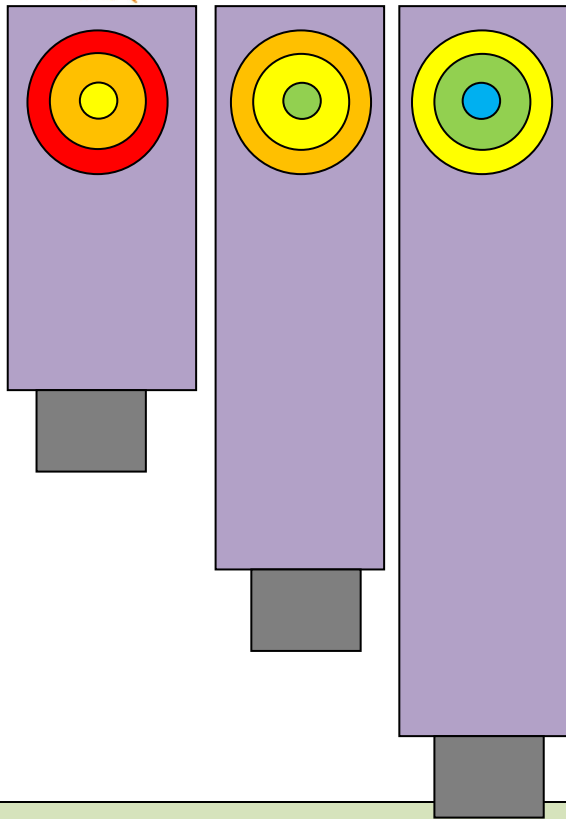




Join the
Lancaster Science Factory and the Optimist Club of Lancaster
On Saturday, March 4th for



The SPLAT-A-Pult-

The machine would need to fit into a designated sized box. Suggestion would be a box no larger the 3 feet by 3 feet. The box would be placed at the end of each of the field layouts to assist with TEAM preparation. Also a practice splat/dry splat will be necessary to test this prior to competition launch

During the competition of Splat... of the catapult... no part of the machine may exceed the plane/limits of the box (3ft x 3ft). NO air cannons or pressure systems will be permitted.

SPLAT- A- Pult

A STEM Game of Strategy and Skill

Field Layout- There will be a total of three independent fields for the SPLAT-A-Pult teams. Each field will have a set length represented by the Purple color, 12-foot, 14- foot and 16-foot respectively. The bullseye color rings will each be 12 inches in diameter. TEAMS will have a total of 8 shots over the course of the competition. Each TEAM will be designated an order of launch for each of the three prospective lengths.... where they will take two shots. After all TEAMS have completed their first 6 shots, TEAMS will then have time to re-group and select which of the fields of choice they will be taking both of their remaining 2 shots. TEAMS will submit a written request to Lead Judge, where an order for launching will then be assigned to each TEAMS request.

Targets- target will be identically sized (12inches in diameter) at each field however, with length of the field the point values change by color. The bottom ring will be placed 1-foot from the end of the set length floor mat.

Red – 2 points, Orange – 4 points, Yellow – 6 points,
Green – 8 points and Blue – 10 points.

Ammunition for this event we will be launching standard sized colored Easter Eggs filled with dried beans. Filled egg will have an approximate weight of 21.0 - 21.5 grams (.75oz).

Winning the SPLAT-A-Pult Competition-

In order to win the SPLAT-A-Pult Competition it is simply a numbers game. Each team will SPLAT for points on each of the designated fields during the first round of competition. The point values for the first round will be totaled and recorded. During second round of competition TEAMS will then request via paper and launch from their choice of the three fields two additional launches. These values will then be totaled and added to the first round of competitions. The third round of competition will be the interview session where an additional 10 points are available. During the interview a panel of judges will ask the TEAMS to explain their machine from the brainstorming of the concept to the actual building of the contraption to the science/engineering of "HOW" it works. The interview session scores will not be published until all groups have completed the interviews. At that point all scored will be totaled and awards will be distributed to top three TEAMS.



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DESIGN Specifications and Rules

1. Each TEAM will provide one SPLAT-A-Pult. No substitutions of the contraption are permitted once final check in is completed on the day of competition.
2. Each TEAM is encouraged to create build in modification to adjust launch angle, launch distance, and more... Keeping the adjustments simple.
3. Each TEAM is encouraged to use the time allotment between launch rounds to fine tune or make minor repairs to their contraption. TEAM must be prepared to launch at their designate time.
4. Each TEAM will be given 5 minutes to setup their contraption with in the pre-designed launch box. And an additional 5 minutes for reset and modifications between first and second launch.
5. Contraption must be secure to the floor within the launch box. No TEAM member is permitted to hold machine during the launching process.
6. Contraption base must fit within the 3ft x 3ft Launch box.
7. Contraption must be 100 % mechanical. Device may not include hydraulics, pneumatics, pyrotechnics, etc.

Scoring

1. First Round Scoring will be based on a simple tally of the 12-foot, 14-foot or 16-foot.
 - a. Maximum possible point value available at 12-foot target is 12 points
 - b. Maximum possible point value available at 14-foot target is 16 points
 - c. Maximum possible point value available at 16-foot target is 20 points**Maximum Available in first round of Competition is 48 points**
2. Second Round Scoring will be determined by the TEAM. Each TEAM will need to submit in writing where they would like to take their last 2 launches. Both Launches must be taken at the same target (12-foot, 14-foot or 16-foot).
Maximum Available in second round of Competition is: 20 points if selecting 16-foot target, 16 points if selecting 14-foot target, or 12 points if selecting 12-foot target.
3. Third Round of Scoring is based on the interview phase of competition. TEAMS will stand in front of an interview panel to discuss their contraptions.
 - a. 15 points are available from 3 specific interview questions
 - b. 5 points are available from Blueprint/Drawing/Notebook of Contraption**Maximum Available in third round of Competition is 20 points**