



InnovationDay@UTA

October 22, 2015

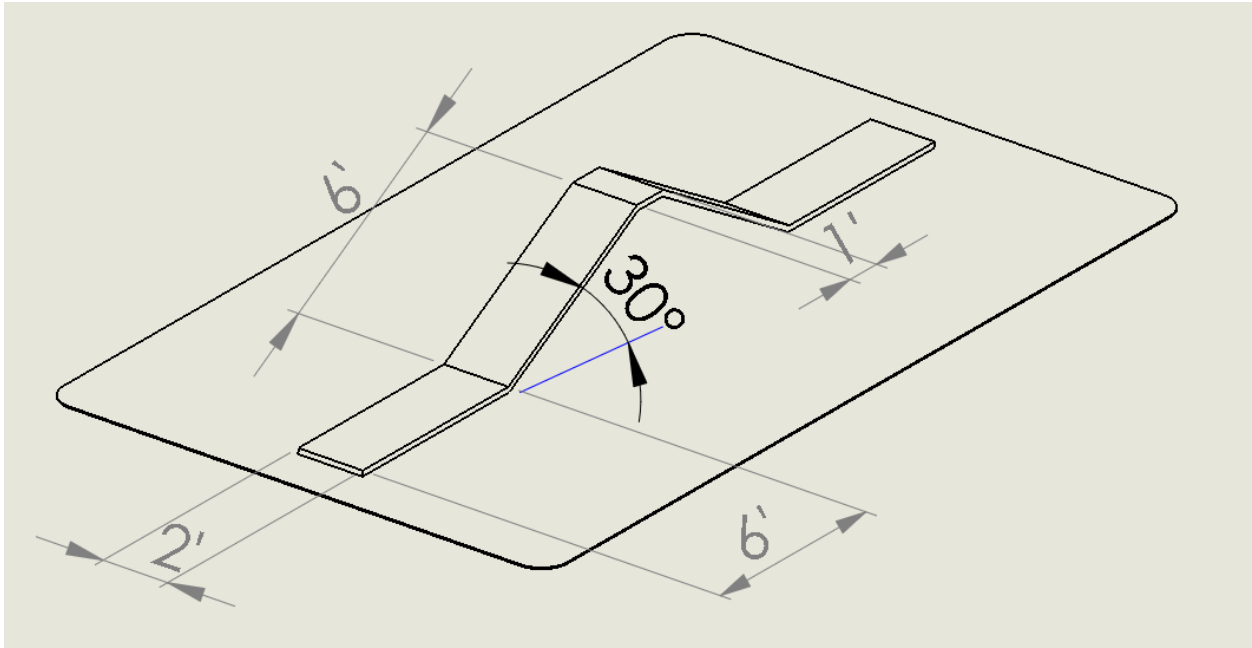
College Park Center

## **InnovationDay@UTA Competition**

The University of Texas at Arlington's Annual InnovationDay@UTA seeks to promote, encourage and recognize innovative and entrepreneurial excellence and success amongst its students, faculty, and researchers, and in the surrounding community. A team-based competition will be open to high school and collegiate teams. The teams will be challenged to develop bold and revolutionary innovations using limited resources, as well as their creativity, knowledge, skills, and time. Detailed competition specifications and rules will be published on the InnovationDay@UTA website. First and Second place winners for both the high school and collegiate levels will be awarded.

### **The Competition Challenge**

You and your team are agents of S.H.I.E.L.D., on a mission to find and destroy the desert base for HYDRA (SHIELD's nemesis organization). HYDRA monitors SHIELD communications from this base. You've identified the location of the base, but before you destroy it, you must determine how HYDRA is monitoring SHIELD communications. Your miniature flying drones won't work for this mission because the surrounding area (desert) is so barren that the drones will be easily spotted and destroyed, giving away your presence in the area. In order to scope out the HYDRA base, you must create a small vehicle that will traverse a distance of at least a mile and climb sand dunes that are between your operating base and the HYDRA base. For purposes of the competition, your mission is to build a prototype that will climb an obstacle that is 3 feet high with an incline of 30 % and that will traverse a distance of 25 feet. To fuel your prototype, you may use any means to propel your vehicle forward, except batteries and combustible products (e.g., you may use mentos and diet coke, rubber bands, gravity storage; your vehicle may not expel any fluids or combustible gases into the environment and its footprint must be contained within the track).



It is possible that SHIELD will choose to produce your vehicle for use by other SHIELD teams on other missions. Therefore, at the competition, you must present a two-minute pitch regarding why your vehicle should be the one chosen by SHIELD to incorporate into its arsenal of tools for fighting the evil HYDRA. You must also provide a detailed budget describing the materials used and the cost for materials for producing your prototype. Your team may spend no more than \$50 to build the prototype. Points will be awarded for management of costs – i.e., the less spent, the more points your team will receive.

## Judging Criteria:

1. **Project concept** – what was the motivation behind the project and what were the aims? These should be defined by the teams at the beginning of the projects and presented with the project on the competition day.
2. **Project process** – How well did you plan and organize your work? What sort of experiments and research did you do? Were you innovative or creative in your approach?
3. **Project Outcome** - How well did your project achieve its aims?
4. **Use of Materials** – How efficient was your team in selecting and using materials? Points scored for good cost management.
5. **Personal skills** – How well did you/the team deal with any problems or challenges? Teams should present “lessons learned” with the project on competition day. How well do you communicate your project?

## Rules:

- Each vehicle must be between 4 in<sup>3</sup> and 8 in<sup>3</sup>.
- No existing vehicle design is allowed.
- Teams may use the University’s Maker Space, located in the library in the center of campus.

## **Rubric:**

20% design/aesthetics from a panel of judges

20% distance traveled over land

20% ability to climb obstacle

20% efficiency of design

20% pitch

## **Application**

Teams should submit an application, stating their intent to enter the competition, by October 2 via the online application. The application shall be on the form provided, and shall list the names of the team participants, advisors (if applicable), and affiliation (i.e., school). Updates to the application (i.e., change in team members) can be sent to the same email address.

### High School and Collegiate Divisions

There will be a high school and collegiate division comprised of three member teams. First and second place will be recognized in each division. First place winners will receive an iPad mini and second place winners will receive a \$150.00 gift card. UT Arlington will donate \$1000.00 and \$500.00 respectively to the STEM Programs of the first and second place winners of the high school division. The high school division participants must be accompanied by a faculty advisor and be in 9<sup>th</sup> - 12<sup>th</sup> grade. The collegiate division participants must be enrolled in a college or university.

Participants must check in by 7:45 AM at College Park Center on October 22, 2015 for the competition. All participants are required to stay through the complimentary lunch and announcement of winners that will conclude at 12:45 PM. Participants are encouraged but not required to attend the remaining afternoon sessions.

***Please contact Staci Moore at [stmoore@uta.edu](mailto:stmoore@uta.edu) or 817-272-2581 with any questions.***