

## High School Webmaster 2018 Design Brief

### **Theme:**

Artificial Intelligence

### **Context:**

Artificial intelligence is the theory and development of computer systems able to perform tasks that normally require human intelligence and cognitive functions, such as learning, decision-making, problem-solving, speech recognition, translation between languages, and visual acuity. In computer science, the field of AI research defines itself as the study of "intelligent agents," which are devices that perceive their environment and take actions that maximize their achievement. Artificial intelligence has the potential to impact humanity in a multitude of ways—both positively and negatively.

Isaac Asimov's Three Laws of Robotics were created to address the negative concerns. They include:

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey orders given it by human beings except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

From its potential uses to concerns, artificial intelligence is fascinating and complicated. Artificial intelligence has the possibility of affecting countless lives.

### **Challenge Statement:**

Design a website for a fictional robotics company, which has created a robot with artificial intelligence. The website should serve as a guide for purchase of a robot to assist humans with educational and business applications. Present an overview of the costs, uses, technologies, benefits, safety, and liabilities related to the robot as if you are a business.

For this website, teams should focus their design brief solution on the potential future personal, commercial, educational, recreational, and research uses for a robot with artificial intelligence. Sections of the site should focus on the available technologies, safety concerns, and potential future uses.

## **Evaluation:**

Questions pertaining to this competition should first include a thorough review with your advisor of the current competitive event guide's Webmaster overview, purpose, eligibility, time limits, attire, procedure, regulations, evaluation, student copyright checklist, LEAP team résumé requirements, and rating form. Then, any questions may be directed to [tsahswebmaster@gmail.com](mailto:tsahswebmaster@gmail.com) at least two weeks prior to any submission deadlines for regional, state, and national conferences.

Thought should be given to effective website design practices and cross-platform compatibility. The website will be evaluated using any combination of Windows 7/8/10, as well as Mac OS X, in any browser supported by those platforms, including the latest versions of Chrome, Edge, Firefox, and Safari. Mobile browsers will be used in evaluation. Teams should strive to create a clean, easy-to-use website that features an excellent presentation of the required content.

Teams are reminded that ALL work (design, content, markup/code) must be the product of the 2017-2018 school year. The design brief should be a separate website independent of the CTE program and TSA chapter content and information with an "About" page linking to the TSA and CTE program web pages.

## **Submission Procedure:**

For NATIONAL COMPETITION: Each webmaster team must submit the chapter's national conference registration ID number, website URL, and required additional documentation to [webentry@tsaweb.org](mailto:webentry@tsaweb.org) no later than 11:59 pm PDT on May 15, 2018. The required information, documentation, and deadline are non-negotiable.

For STATE COMPETITION: Teams must consult their state conference competition website for state conference competition and submission procedures.

## **References:**

McCarthy, J. (2007). What is artificial intelligence? Retrieved July 15, 2017 from <http://www-formal.stanford.edu/jmc/whatisai/node1.html>

Wikipedia. (2017). Wikipedia: Artificial Intelligence. Retrieved July 15, 2017 from [https://en.wikipedia.org/wiki/Artificial\\_intelligence](https://en.wikipedia.org/wiki/Artificial_intelligence)

The List of Lists. (2001). Asimov's 3 Laws. Retrieved July 15, 2017 from <https://www.auburn.edu/~vestmon/robotics.html>

Technology Student Association. (2017). Technology Student Association (TSA) High School Competitive Events Guide for the 2017 and 2018 National TSA Conference. Reston, VA: Technology Student Association, Inc.