Intel® Technology Requirements

Each team entering the call for casting of America's Greatest Makers Season 2 is required to integrate at least one of the following innovative Intel® technology options defined below into their product idea. The recommended team skills for each of the technology options are also provided. Additional details about the specifics of the Intel technology hardware and software will be unveiled at the beginning of the competition.

1. **An Intel® Curie™ Compute Module powered board for contestants with smaller form-factor, smart, connected or wearable product ideas.**

   One option is the Arduino 101* board. Available in retail today, this learning and development board is easy to use and delivers performance with low-power consumption. This board offers Bluetooth® connectivity and features a six-axis accelerometer and gyroscope. With the Bluetooth connectivity feature, there is the opportunity to communicate between the board and a phone or tablet. Learn more about this product here: https://www.arduino.cc/en/Main/ArduinoBoard101 .
   Recommended team skills- knowledge in Arduino* sketch and basic electronics.

2. **A next-generation Intel® Atom™ processor-based platform providing advanced display, graphics and high-speed I/O in a low-power, small form-factor configuration for product ideas.**

   With an easy setup and friendly out-of-box experience, this highly-integrated compute solution gives developers the capability to rapidly prototype design concepts. This high-performance platform also offers excellent Intel RealSense™ ZR300 Camera integration.
   Recommended team skills- C, C++, or Python*; Linux*.

3. **The Intel® RealSense™ ZR300 camera offers a small form-factor solution for contestants who want to add visual depth sensing and tracking capabilities to their product ideas.**

   It features high resolution and accuracy depth maps, indoor and outdoor use, high frame rate, in a compact design that easily integrates into embedded platforms. The Intel® RealSense™ Software allows you to see and understand the world in 3D by building on the depth and tracking information provided by the ZR300 camera hardware module. Capabilities include: simultaneous localization and mapping (SLAM) with six-degrees of freedom (6DoF) for the general camera motion, and object and person recognition and tracking.
   Recommended team skills- Familiarity with computer vision and image processing APIs such as OpenCV*; C++, Javascript*, C#, Java*, or Processing.