

## 2024 IEEE REGION 3 SOUTHEAST CON

### I. STUDENT SOFTWARE COMPETITION RULES

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In the IEEE Region 3 Software Competition, IEEE students will be provided with a software challenge, all material needed to complete the challenge, a set of deliverables, and timeline at the start of the competition. Students will then use the set amount of time to solve the challenge and complete as many deliverables as possible to the best of their ability.

### Competition Timeline

#### *Key Dates*

|                     |  |
|---------------------|--|
| January 15th , 2024 | Registration for the Software Competition opens. Information on how to register for the competition will be posted on the Southeast Con 2024 website |
| February 15th, 2024 | Registration for the Software Competition closes.  |
| March 21st, 2024    | Software competition occurs on site at SoutheastCon. The competition starts at 9:00 PM. The competition ends at 9:00 AM on Friday, March 22nd.       |

#### *Competition Process*

Below is a breakdown of the competition process. The remaining section of this document will address the details needed to complete each step:

1. Create your team and register for the competition  
*Students can compete in teams of up to 3 undergrad students or 2 grad students.*
2. Arrive at SoutheastCon by 9 PM on March 21st 2024 to compete  
*Details on the competition timeframe will be posted with the SoutheastCon 2024 agenda.*

### *What to expect*

Students can expect the challenge and deliverables to be appropriate for students who have completed at least one year of EE/ECE classes. Students will be programming in an Arduino Integrated Development Environment. The competition committee will provide each team with a complete kit to use during the competition. Each team is expected to return the complete kit at the end of the competition. The competition will be using the ELEGOO Mega 2560 The Most Complete Starter Kit. The competition committee will provide each team a copy of the PDF tutorial and Arduino sample code on a USB device. This USB will be provided at the start of the competition. If students would like to obtain the PDF tutorial and sample code earlier, please refer to section “How to Prepare” below.

Students will be allowed to leave the room for restroom breaks or to grab food from a food delivery service. If a student needs to leave the room for more than 10 minutes then they will not be allowed back and their team will have to continue the competition without them.

### *Team sizes*

Students can compete in teams of up to 3 undergrad students or 2 grad students. There is a finite number of resources and spots available for this competition. Each Region 3 branch is entitled to send one team for the main competition, securing a guaranteed spot. Additionally, branches have the opportunity to send extra teams to participate in an open bracket. Open bracket teams will be eligible to compete based on the availability of resources. Within a week after registration closes, teams that signed up for the open bracket will be contacted and informed if there is a spot for them to compete in the competition.

### *What to bring*

Students are allowed to bring text books and any notes/papers they feel might be helpful. Students are expected to bring laptop(s) and power strips for those laptops to use during the competition. Students will be allowed to use the internet for this competition but are not allowed to use any AI sites such as ChatGPT. The laptops must have either 1) a Type A USB Female port, 2) an adapter from the laptop USB-C to Type A USB Female port, or 3) a USB Hub, attachable to the laptop, with a Type A USB Female port. The operating system for the laptop should be compatible with Arduino IDE. Acceptable operating systems include Microsoft Windows, MacOS, and Linux.

### *How to Prepare*

Students may set up the Arduino IDE on their computers any time prior to the competition. The Arduino IDE can be found at <https://www.arduino.cc/en/software>. Older versions of the Arduino IDE can be found at <https://www.arduino.cc/en/software/OldSoftwareReleases#previous>.

**2024 IEEE Region 3 Southeast Con**

*Student Software Competition Rules*

Students may learn how to use the ELEGOO Mega 2560 The Most Complete Starter Kit and components by studying and working with the vendor's tutorial. The tutorial and all files are contained in a compressed file. The tutorial, including sample code, can be found at [https://download.elegoo.com/?t=Mega\\_2560\\_The\\_Most\\_Complete\\_Starter\\_Kit](https://download.elegoo.com/?t=Mega_2560_The_Most_Complete_Starter_Kit).