

## **2022 NJAAPT PHYSICS OLYMPICS**

### **Events, Rules, and Scoring**

**Saturday, January 15, 2022  
8:00am – 2:30pm**

**2 Locations (choose 1)**

**North/Central New Jersey - Monmouth Regional HS**

**Southern New Jersey – Timber Creek HS (Camden County)**

### **Awards**

**A maximum of 100 points will be given for each of the six events; therefore, the maximum number of total points is 600 points. The team with the highest number of total points will be the winner, followed by a second place team, and a third place team. The NJ Physics Olympics Silver Serial Bowl will be awarded for one year of custody to the overall first team. The top three teams will be awarded trophies as well as the winning team in each event.**

### **General Rules**

- A team shall consist of no more than six members. Each team member must be from the high school of the team. No substitutions may be made for any member of a team during the course of the day's events (*i.e., only the original team members and no others are eligible to compete in any of the events*). Not all team members must participate in each event. A team may not use another team's entries for their own, even if they are from the same school.
- To register team(s), at least one staff member from the participating school must be a NJAAPT member.
- Schools may only choose one location at which to participate.
- Participants at each location will be awarded trophies as outlined in the Welcome flyer.
- For events that require the prior construction of an apparatus, the following guidelines will be followed:
  - a. During registration, the team must present to the judge(s) picture(s) of their apparatus taken from within their classroom/lab to document their design. No major design changes will be permitted once the photos are submitted.
  - b. The apparatus may be brought to the competition partially assembled but must be fully assembled at the time of the event. The apparatus may not be built on site.
- For each event a judge, prior to the competition for that event, will inspect all devices. It must be clear to the judge that no part of a device is unsafe. For example, no rat or larger animal traps

may be used as these traps may sever fingers (mouse traps may be used), no elastic material wound so tightly that injury could result if it should snap free, no large fast spinning gyroscopes that could spin out of control, no large compressed gas cylinders or dangerous chemical reactions. If an entry is disqualified, the team will be given 20 minutes to modify their apparatus.

- 3D printing is allowed under the following guidelines:
  - a. If the object being printed is a standard stock part item such as a gear or pulley, then it can be printed using a commercially-purchased program.
  - b. If a substantial part of, or the entire device being entered is 3D printed, then the device may be 3D printed as long as the team wrote the program, i.e., no commercially purchased programs may be used. The team must provide proof to the judge(s) that they wrote the program
- All teams are encouraged to use creativity while keeping in the spirit of the competition.
- If a team is unsure that their entry is within the spirit of the rules or to discuss rule interpretations, it is their responsibility to
  - 1) notify the Physics Olympics Committee prior to the event for clarification and
  - 2) notify the judge panel before the start of the activities on the day of the event to get final clarification and approval.
- The following procedure will be followed to protest a judge(s) decision.
  - Only one team member may discuss rule disputes with the judge(s).
  - If the issue(s) is/are not resolved, the teacher chaperone of the team may protest to the judge panel of the Physics Olympics.
  - Only the judge panel may disqualify a team.
  - The judge panel's decision(s) is/are final in all aspects of the event.
- It is the team's responsibility to dispose of their projects, building materials and trash items and to leave their assigned area clean. Teams may be asked to dispose of large bulk items at their own school.
- Updates to the rules and Forum discussion / questions with answers are available by going to the NJAAPT website: [njaapt.wildapricot.org](http://njaapt.wildapricot.org) (top menu, "Events" and "Forum"). It is the team's responsibility to periodically check in or inquire about changes and clarifications to the rules.