

MECHATRONICS 2018 CONTEST

RULES, CONDITIONS AND SPECIFICATIONS

Professional Engineers Ontario Scarborough Chapter (PEOSC) conducted Mechatronics Car Contest (MCC) in the previous years as an introduction to Mechatronics, which is an upcoming multidisciplinary engineering field involving mechanical engineering, electrical engineering and ICT (information and communication technology). Robotics is a branch of Mechatronics. From this year (2018) PEOSC is introducing programming microcontrollers (such as Arduino) also into this contest, which will be held in smaller halls. Each year the project (contest devices) may be different.

The prizes are awarded in 2 categories:

- 1. Knowledge of participants determined by a panel of judges by interviewing**
- 2. Performance of the Mechatronics device(s) as determined by contest rules**

Register online → PEOSC will provide a program

- PEOSC will provide components
- Build the Car and bring it to the competition venue and compete
- Confirm the Registration on the day of event → Answer the Judges questions

Steps to be followed by the participants:

Summary of Rules & Conditions

1. The contest is open for 2 Groups: **Juniors** (Grade 9 & 10) and **Seniors** (Grades 11 & 12) students of Scarborough High Schools.
2. Applications can be made by teachers or parents/guardian by filling the form on our website, and agreeing to the Rules and Conditions.
3. Each project (contest device) will be designed, fabricated and contested by Teams of 2 or 3 students.

Note: *Single student teams are not allowed.*

4. The work should be by the students only. Teachers and parents/guardians may coach/help the students, and **assure safety** during fabrication.
5. The students should fully understand their work as they will be judged by answering questions including practical measurements by using multimeters.
6. Parts will be supplied to the schools or parents from about few weeks before the contest. a. Parent consent forms available at the site should be signed and submitted when receiving the parts.
b. A nominal registration fee of **\$ 15.00** per Junior Team and **\$ 20.00** per Senior Team is payable at the time of reception of parts. This fee is mainly to ensure that only interested students participate, and to partly offset the cost of parts.
7. Every participant will receive a Certificate of Participation.

Important Note:

Students should use the program given in the website to control the motor and the motor has to be controlled using an Arduino Uno