

# ***THE QUANTUM QUARANTINE***

## **Schedule for the event:**

A team should contain 3 members.

The entry fee for a team is Rs.150 rupees.

- This event is split into two parts:
  - ✓ Workshop(3hrs)
  - ✓ Competition based on the workshop(3hrs)
- Workshop will be conducted from 9.00AM to 12.00PM
- Lunch break :12.00PM to 1.00PM
- The competition will be conducted from 1.00PM to 4.00PM.

## **Pre Requirements:**

- Participants must bring Laptops(with internet).
- Arduino IDE software must be installed in your laptops compulsory and participants are expected to have a basic knowledge on arduino IDE software.

## **Workshop Phase:**

The workshop session will be conducted for the participants in which they will get to learn the following,

- Introduction to Arduino Environment.
- Controlling Digital Outputs
- Interfacing DC motor and Drivers
- Controlling analog Outputs
- Controlling speed of DC Motors
- Sensing Digital Inputs
- Interfacing IR line following sensors
- Interfacing Motor control based on Line Following Sensors

### **Competition Phase:**

#### **Round-1: Simulation and Programming**

Participants who clear the 1<sup>st</sup> round will be selected for upcoming rounds. Kindly note that this round will be an elimination round. This round involves Circuit designing

for 2WD robot car and Simulation of all cases for 2WD robot car.

Round-2: Basic Terrain Testing for line following robot

This round involves Testing and Assembly of 2WD robot car and Terrain training for different types of paths.

Round-3: Circuit Surfing

Three trails are given to one team, to complete a circuit with different types of paths. The robotic car which completes the given task at minimum time while following the pre-determined rules get to be the winner.