



5th Formula Imperial – HVC 19 (Pre-Virtual Round)

Day 1:

Topics

- Background
- Team formation
- Planning, Communication & Review
- Design

Day 1 (Session 1) – 09:00am – 1:00 pm

1. Inauguration & Background (09:00 am – 10:00 am)

- Opening Ceremony
- Introduction to the event
- Introduction to the speakers
- Introduction to Motorsports
- Workshop Agenda

2. Team Formation (10:00 am – 10:30 am)

- Individual Roles
- Importance of Team Work
- Work Distribution amongst the team members

3. Planning Communication & Review (10:30 am – 11:30 am)

- Importance of Planning in the team
- Student activity & interaction
- Rectify & Explain proper planning concept
- Major Planning activity
- Importance of vision & communication

4. Designing & Software Session (11:30am - 1:00 pm)

- Introduction to Designing Software
- How to master designing

Lunch Break (1:00 pm – 2:00 pm) – Please note that Session 2 will start sharply at 2 pm

Day 1 (Session 2) – 2:00 pm – 5:00 pm

5. Designing & Software Session (2:00 pm - 5:00 pm)

- Designing of subsystems through software
 - ✓ Chassis & Bodyworks
 - ✓ Suspension
 - ✓ Braking
 - ✓ Powertrain
 - ✓ Axle & Wheel Assembly
 - ✓ Steering Assembly

Day 2:

Topics

- Procurement
- Vehicle build
- Testing
- Refinement
- Final build & testing
- Final Event management (planning, budgeting, logistics, spares, vehicle tuning, technical inspection clearance, data collection)

Day 2 (Session 1) – 09:00 am – 1:00 pm

1. Procurement (09:00 am – 10:00 am)

- Understanding the needs
- Shortlisting & obtaining components

2. Vehicle Building Session (10:00 am – 1:00 pm)

- Planning & Task allocation
- Verification of the design
- Progress check & Efficiency management
- Prototype Designing
- Jigs manufacturing, Part fitting, Assembly process
- Material & Tool Handling, Safety precautions
- Welding, Painting, Wiring
- Vehicle Presentation
- Student Activity

Lunch Break (1:00 pm – 2:00 pm) – Please note that Session 2 will start sharply at 2:00 pm

Day 2 (Session 2) –2:00 pm – 5:00 pm

- 3. Testing (2:00 pm – 3:30 pm)**
 - Importance of Testing
 - Proper Testing Methods
 - Design Validation Plan
 - Student Activity (DVP)
- 4. Refinement (3:30 pm – 4:00 pm)**
 - Student Interaction & inputs
 - Open Discussion
- 5. Final Build (4:00 pm – 4:30 pm)**
 - Videography
 - Documenting the changes
 - Explaining the importance of documentation
- 6. Final Event (4:30 pm – 5:00 pm)**
 - Preparation for tech inspection
 - Importance of rulebook considerations
 - What to expect at the final event

Day 3:

Topics

- Sketching Activity
- Online Test
- Electrical & Electronics
- Hybrid Powertrain
- Safety Considerations

Day 3 (Session 1) – 09:00 am – 1:00 pm

- 1. Sketching Activity (09:00 am – 10:00 am)**
 - Car Design & Structure hand sketch activity
- 2. Electrical & Electronics (10:00 am – 12:00 Noon)**
 - Motor Selection
 - Battery Selection
 - Wiring & Connections
 - Electrical Safety
- 3. Online Test (12:15 pm – 1:15 pm)**

Lunch Break (1:30 pm – 2:30 pm)– Please note that Session 2 will start sharply at 2:30 pm

4. Hybrid Powertrain (2:30 pm – 4:00 pm)

- What do you understand by hybrid?
- Types of Hybrids
- Developing hybrid Powertrain
- Efficiency Management of Hybrid Powertrains

5. Safety & Precautions (4:00 pm – 4:30 pm)

6. Closing Ceremony & Guest Speech (4:30 pm – 5:00 pm)