### **Components and Estimated Costs**

#### **1. Chassis and Frame Modification**

* Using Own Chassis (Plastic Mould): ₹60,000

#### **2. VR System**

* High-End VR Headset
  + Oculus Rift S: ₹21,000 ([Amazon.com: Oculus Rift S PC-Powered VR Gaming Headset](https://www.amazon.com/Oculus-Rift-PC-Powered-Gaming-Headset-pc/dp/B07PTMKYS7)) **(This one)**
  + HTC Vive Pro: ₹1,80,000 (<https://myhtcstore.vive.com/vive_in/cms/>)
* VR-Ready PC
  + High-end graphics card (NVIDIA RTX 4060): ₹31,000 (<https://www.amazon.in/ASUS-DisplayPort-2-5-Slot-Axial-tech-Technology/dp/B0C8JT7K1M/ref=sr_1_1?s=computers&sr=1-1>)
  + High-performance CPU (Intel i7/i9 or AMD Ryzen 7/9): ₹90,000 (Amazon: intel i9 CPU)
  + 32GB RAM: ₹6,950 (<https://www.amazon.in/Kingston-FURY-3200MHz-KF432C16BB-32/dp/B097K3STJG/ref=pd_ci_mcx_pspc_dp_d_2_t_3>)
  + Fast SSD (512GB): ₹5,300 (<https://www.amazon.in/Crucial-PCIe-NAND-NVMe-3500MB/dp/B0B25LZGGW/ref=sr_1_1?s=computers&sr=1-1>)
  + Total PC Cost: ₹1,29,800

#### **3. Simulation Software (In house designing using F1 races)(not finalized yet)**

* Racing Simulation Software
  + iRacing: ₹8,000 - ₹20,000
  + Assetto Corsa: ₹8,000 - ₹15,000
  + rFactor 2: ₹10,000 - ₹20,000
  + Project Cars 2: ₹10,000 - ₹20,000
* Subscription Fees
  + Monthly fees for services like iRacing: ₹800 - ₹2,400 per month
* Custom Software Development: ₹5,00,000 - ₹10,00,000 (if necessary)

#### **4. Peripheral Hardware (In house manufacturing)**

* Additional Controllers
  + Handbrake: ₹10,500 (<https://www.thrustmaster.com/products/tss-handbrake-sparco-mod/>)
* In House Manufacturing
  + Basic Steering Wheel: ₹12,500
  + Sensors for Pedals: ₹450 - ₹1,500
  + Pedal Assembly: ₹2,500

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#### **5. Motion Platform**

In-House Manufacturing (Details in the end):

* Basic 2DOF Motion Platform:
  + Total: ₹88,800 - ₹193,000
* Advanced 6DOF Motion Platform:
  + Total: ₹186,800 - ₹391,000

**6. Audio System**

* Surround Sound System
  + Creative Sound BlasterX Katana: ₹17,000 (<https://www.amazon.com/BlasterX-Multi-Channel-Surround-Entertainment-Soundbar/dp/B01M5G07KF>)
* High-Quality Headphones
  + Audio-Technica ATH-M50X: ₹12,000 (<https://www.amazon.in/Audio-Technica-ATH-M50x-Professional-Monitor-Headphones/dp/B00HVLUR86>)

#### **7. Display System**

* Triple Monitor Setup
  + 1\*27-inch monitor with high refresh rates: ₹40,000 (<https://www.lg.com/in/monitors/gaming/34gs95qe-b/>)

#### **8. Miscellaneous**

* Seat
  + Racing seat from Sparco: ₹50,000 (<https://www.sparcousa.com/product/r333-2021>)
* Cables, Mounts, and Accessories
  + HDMI cables, USB hubs, monitor mounts, and other necessary accessories: ₹15,000
* Professional Setup and Calibration
  + Service fees for professional installation and calibration of the entire setup: ₹40,000 - ₹1,20,000 (optional)

### **Total Estimated Cost**

* Setup:

### **Basic 2DOF Motion Platform**

#### **Mechanical Components**

1. **Frame and Platform**
   * **Material**: Steel or aluminum
   * **Estimated Cost**: ₹20,000 - ₹50,000
2. **Joints and Bearings**
   * **High-quality bearings and joints**
   * **Estimated Cost**: ₹2,000 - ₹5,000
3. **Actuators or Motors**
   * **High-torque linear actuators or DC motors**
   * **Quantity**: 2
   * **Estimated Cost per Actuator/Motor**: ₹10,000 - ₹25,000
   * **Total Cost**: ₹20,000 - ₹50,000

#### **Electronic Components**

1. **Microcontroller**
   * **Arduino, Raspberry Pi, or similar**
   * **Estimated Cost**: ₹800 - ₹2,000
2. **Motor Drivers**
   * **High-power motor drivers**
   * **Quantity**: 2
   * **Estimated Cost per Driver**: ₹5,000 - ₹10,000
   * **Total Cost**: ₹10,000 - ₹20,000
3. **Power Supply**
   * **Suitable power supply unit**
   * **Estimated Cost**: ₹5,000 - ₹10,000
4. **Sensors (optional)**
   * **Position sensors for feedback (potentiometers or Hall Effect sensors)**
   * **Quantity**: 2
   * **Estimated Cost per Sensor**: ₹500 - ₹1,000
   * **Total Cost**: ₹1,000 - ₹2,000

#### **Software Development**

1. **Firmware and Control Software**
   * **Estimated Cost**: ₹10,000 - ₹15,000 (if outsourced)

#### **Fabrication and Assembly**

1. **Machining, Welding, and Assembly**
   * **Fabrication costs**
   * **Estimated Cost**: ₹20,000 - ₹35,000

#### **Wiring and Connectors**

1. **Wires, Connectors, and Miscellaneous**
   * **Estimated Cost**: ₹2,000 - ₹4,000