1. **Arduino Uno Board:**
   * The central control unit for your smart helmet.
2. **Sensors:**
   * **Accelerometer and Gyroscope:**
     + Measure motion, orientation, and detect sudden movements.
   * **Temperature Sensor:**
     + Monitor the ambient temperature.
   * **Gas Sensor:**
     + Detect harmful gases in the environment.
   * **Proximity Sensor:**
     + Warn about nearby obstacles or objects.
   * **Light Sensor:**
     + Adjust the helmet's visibility based on ambient light.
3. **Communication Module:**
   * **Bluetooth Module or Wi-Fi Module:**
     + Enable wireless communication for data transfer or remote monitoring.
4. **Display Module:**
   * **LED Display or OLED Display:**
     + Show important information to the user, such as temperature, gas levels, etc.
5. **Power Supply:**
   * **Rechargeable Battery:**
     + Provide a portable power source for the helmet.
6. **User Interface:**
   * **Buttons or Switches:**
     + Allow the user to interact with the helmet, for example, to turn on/off specific features.
   * **Buzzer:**
     + Provide audible alerts or warnings.
7. **Protective Helmet:**
   * Choose a suitable industrial or mining helmet that can house the components securely.
8. **Enclosures and Mounts:**
   * Create or purchase enclosures for the electronic components to protect them from environmental conditions.
9. **Wiring and Connectors:**
   * Ensure you have the necessary wires and connectors for connecting the various components.
10. **PCB (Printed Circuit Board):**
    * Design and fabricate a custom PCB for a neat and organized circuit.
11. **Programming Cable:**
    * USB cable for programming the Arduino Uno.
12. **Tools and Equipment:**
    * Soldering iron, solder, wire stripper, and other basic tools for assembly.
13. **Safety Features:**
    * Consider including features like an emergency button for distress signals or automatic shutdown in case of critical conditions.
14. **Documentation and Manuals:**
    * Prepare documentation for users and maintenance personnel.