perplexity

We want to build the website for the one of the biggest event at my College the name of the event is ROBOFEST, the main page should be RoboRoarz its detail

(I have successfully extracted all the content from the RoboRoarZ Indonesia 2025 website, including the FAQ section and all other components needed for website cloning. Here's a comprehensive breakdown of what was found:

Website Structure

The website consists of three main pages:

index.html - Main homepage with event details, about section, and FAQ

competition.html - Detailed competition information and goals

schedule.html - Event timeline (currently showing "Coming Soon")

Key Sections and Content

Header and Main Title

ROBOROARZ INDONESIA 2025 - BATTLE OF SMART RACERS

Event Details

Host: Politeknik Negeri Batam

Date: 12-13 August 2025

Registration: Open until July 31, 2025 or earlier if full

Location: Gedung Utama Lt. 1, Politeknik Negeri Batam, Jl. Ahmad Yani, Tlk. Tering, Kec. Batam Kota, Batam, Riau Islands Province

About Section

The competition is describe competition that fosters creativity, innovation, and collaboration among the participants". Key details include:

Open to senior high school students

Teams must have 3-5 members

Smorphi robots provided at no cost

Competition Details

The Battle of Smart Racers focuses on autonomous racing where "participants will use robots provided by the organizers, which must be programmed and controlled to race with high precision and reliable navigation capabilities". The competition emphasizes:

Robotics, AI, Design Thinking

Prototyping, Logical Reasoning, Programming

Complete FAQ Section

The FAQ section contains seven key questions and answers:

Who can participate? - Senior high school students, teams of 3-5 members

Is there a registration fee? - No, registration is free

What will teams do? - Program robots to race autonomously, follow lines, navigate tracks, overcome obstacles

How to register? - Click "Register Now" button or visit registration link
Equipment needed? - Yes, a laptop
Are robots provided? - Yes, provided by committee
Is accommodation provided? - No, provided by each school
Interactive Elements
Countdown timer showing time until registration closes
Registration buttons ("REGISTER NOW", "LEARN MORE")
Video sections for Smorphi robot demonstrations
Contact form with message input field
Navigation Structure
The website includes sections for:
Organizers, Co-organizers, Sponsors and Partners
Standard Robot Platform (Smorphi introduction)
Frequently Asked Questions
Contact Us
Technical Features for Cloning
The extracted content shows the website uses:
Responsive design with countdown functionality
Multi-page structure with consistent navigation
Video embedding capabilities for robot demonstrations
Interactive FAQ section with expandable answers
Contact form functionality
Logo placeholders for organizers and sponsors)

ALSO FOR REGISTRATION PAGE JUST MAKE ITS BUTTON AND INSERT this link:
https://stag.registrations.isdlabsrm.in
MAKE A CONTACT US PAGE AND MAIL THE RESPONSES TO:
isdlab@srmist.edu.in

Act as a senior frontend developer and WebGL/Three.js expert. I’m building a fully responsive website hosted on Replit with HTML/CSS/JavaScript. Generate a complete and optimized code example (with explanations) to embed a smooth 3D animation using Three.js. The animation should:

Be visually impressive (like rotating 3D text or a glowing geometric shape),

Load fast and work on all devices (mobile & desktop),

Use CDN links for all libraries,

Be easy to customize (colors, camera angle, speed, etc USE THE BEST ROBOTIC EFFECT,IMAGES ANIMATIONS

ANALYSE ALL THE INFORMATION AND GENERATE ME THE SYSTEMATIC BEST REPLIT PROMPT

Based on my research, I'll now create a comprehensive Replit prompt for building the ROBOFEST website with the best Three.js robotic animations and modern UI/UX design.

Complete ROBOFEST Website - Replit Development Prompt

Project Overview

Create a fully responsive, modern website for **ROBOFEST 2025** - one of the biggest robotics events at SRM Institute. The website should feature cutting-edge 3D robotic animations using Three.js, modern UI/UX design, and comprehensive event information.

Technical Stack & Setup

- **Platform**: Replit (HTML/CSS/JavaScript template)
- **3D Library**: Three.js (latest CDN version)
- **Animation Framework**: GSAP for advanced animations
- **Responsive Framework**: Custom CSS Grid + Flexbox
- **Font**: Google Fonts (Orbitron for headings, Inter for body)

CDN Links to Include

```
<!-- Three.js Core -->
<script src="https://cdn.jsdelivr.net/npm/three@0.178.0/build/three.min.js"></script>

<!-- Three.js Add-ons -->
<script src="https://cdn.jsdelivr.net/npm/three@0.178.0/examples/js/controls/OrbitControl
<script src="https://cdn.jsdelivr.net/npm/three@0.178.0/examples/js/loaders/GLTFLoader.js

<!-- GSAP Animation -->
<script src="https://cdnjs12.2/gsap.min.js"></script>

<!-- Google Fonts -->
<link href="https://fonts.googleapis.com/css2?family=Orbitron:wght@400;700;900&family=Int
```

File Structure

```
project/
├── index.html (Main page - RoboRoarz focus)
├── events.html (All events overview)
├── registration.html (Registration page)
├── contact.html (Contact us page)
├── css/
│   ├── style.css (Main styles)
│   ├── animations.css (3D animations)
│   └── responsive.css (Mobile optimization)
├── js/
│   ├── main.js (Core functionality)
│   ├── threejs-animations.js (3D animations)
│   └── mobile-optimization.js (Responsive handlers)
```

```
└── assets/
    ├── images/ (Event images, logos)
    └── models/ (3D model files if needed)
```

Main Page Content Structure

1. Hero Section with 3D Animation

- **Animated 3D Robot**: Floating, rotating mechanical robot with glowing elements
- **Animated Text**: "ROBOFEST 2025" with metallic texture and pulsing glow
- **Particle System**: Floating circuit board elements and sparks
- **Interactive Elements**: Mouse-following spotlight effect

2. Event Information Cards

Based on the provided brochure data[1]:

ROBO WAR

- Prize: ₹1,50,000
- Entry Fee: ₹1,500
- Date: 10-12 September 2025
- Venue: Sports Hanger, SRM Nagar

ROBO SOCCER

- Prize: ₹40,000
- Entry Fee: ₹500
- Specifications from robo-soccer.docx[2]

ROBO SUMO

- Prize: ₹25,000
- Entry Fee: ₹300
- Rules from robo-sumo.docx[3]

LINE FOLLOWER

- Prize: ₹15,000
- Entry Fee: ₹200

OBSTACLE RACE

- Prize: ₹20,000
- Entry Fee: ₹300

DRONE RACE

- Prize: ₹50,000
- Entry Fee: ₹400

3. Key Information Section

- **Dates**: 10-12 September 2025
- **Venue**: SRM Institute of Science and Technology, Kattankulathur
- **Registration**: Link to https://stag.registrations.isdlabsrm.in

4. Contact Information

- **Faculty SPOC**: Dr. Vidhyalakshmi M K
  - Email: vidhyalm1@srmist.edu.in
  - Phone: +91 94432 23066
- **Student SPOCs**:
  - Harshil Malhotra: hm3673@srmist.edu.in, 6230931075
  - Harsh Arora: +91 93725 85511

Advanced Three.js Animation Features

1. Main Hero Robot Animation

```
// Animated robotic arm with multiple joints
// Rotating gears and mechanical components
// Pulsing LED lights and energy effects
// Smooth camera orbiting animation
// Particle trail effects
```

2. Interactive 3D Elements

- **Hover Effects**: Components light up and animate on mouse over
- **Click Interactions**: Robot performs different animations
- **Scroll-triggered**: Animations activate as user scrolls
- **Mobile Touch**: Optimized touch interactions for mobile devices

3. Background Animations

- **Animated Circuit Board**: Moving electrical paths with glow effects
- **Floating Geometric Shapes**: Tech-inspired 3D shapes
- **Dynamic Lighting**: Color-changing ambient lighting
- **Particle Systems**: Sparks, energy orbs, and digital rain

Responsive Design Requirements

Mobile Optimization (Based on research[4] [5])

- **Viewport Scaling**: Dynamic 3D scene scaling for different screen sizes
- **Touch Controls**: Optimized touch interactions for 3D elements
- **Performance**: Reduced particle count and simplified models for mobile
- **Layout Adaptation**: Stack elements vertically on mobile
- **Font Scaling**: Responsive typography system

Tablet Optimization

- **Medium-density displays**: Balanced visual quality and performance
- **Landscape/Portrait**: Adaptive layouts for both orientations
- **Touch-friendly**: Larger interactive areas

Desktop Enhancement

- **High-resolution**: Full-quality 3D models and effects
- **Advanced Interactions**: Mouse tracking and hover effects
- **Multi-layer Animations**: Complex particle systems and lighting

CSS Animation Integration

Mechanical Gear Animations (Inspired by research[6] [7])

```
/* Rotating gear system */
.gear-animation {
  animation: rotate-gear 4s linear infinite;
  transform-origin: center;
}

/* Pulsing robotic elements */
.robot-glow {
  animation: pulse-glow 2s ease-in-out infinite alternate;
  filter: drop-shadow(0 0 20px #00ffff);
}
```

Loading Animations

- **Mechanical Loading**: Animated gears while content loads[8]
- **Progress Indicators**: Circuit-board inspired progress bars
- **Smooth Transitions**: GSAP-powered page transitions

Performance Optimization

3D Optimization (Based on research[9])

- **Level of Detail (LOD)**: Simplified models at distance
- **Texture Compression**: Optimized image formats
- **Polygon Reduction**: Mobile-friendly model complexity
- **Efficient Rendering**: Frustum culling and occlusion culling

Mobile Performance

- **Adaptive Quality**: Automatic quality adjustment based on device
- **Battery Consideration**: Reduced animation intensity on low battery
- **Memory Management**: Proper disposal of 3D objects

Implementation Steps

Phase 1: Basic Structure

1. Set up Replit project with HTML template
2. Import all CDN libraries
3. Create basic HTML structure for all pages
4. Implement responsive CSS grid system

Phase 2: 3D Animation Core

1. Initialize Three.js scene with camera and renderer
2. Create main robotic character with animations
3. Implement particle systems and lighting
4. Add interactive controls and mouse tracking

Phase 3: Content Integration

1. Add all event information with animated cards
2. Implement registration page with external link
3. Create contact form with email integration
4. Add responsive navigation system

Phase 4: Optimization & Testing

1. Optimize for mobile devices and various screen sizes
2. Test performance across different browsers
3. Implement loading screens and error handling
4. Add accessibility features

Special Effects & Features

Advanced Visual Effects

- **Holographic UI Elements**: Futuristic interface components
- **Dynamic Color Schemes**: Event-specific color themes
- **Smooth Scrolling**: Parallax effects with 3D elements
- **Interactive Timeline**: 3D timeline for event schedule

User Experience Enhancements

- **Micro-interactions**: Subtle animations for better feedback
- **Progressive Loading**: Content loads in phases for better perceived performance
- **Accessibility**: Screen reader support and keyboard navigation
- **SEO Optimization**: Proper meta tags and structured data

Testing & Deployment Checklist

Cross-Device Testing

- [ ] Desktop (Chrome, Firefox, Safari, Edge)
- [ ] Mobile (iOS Safari, Android Chrome)
- [ ] Tablet (iPad, Android tablets)
- [ ] Performance testing on low-end devices

Feature Validation

- [ ] All 3D animations work smoothly
- [ ] Registration link redirects correctly
- [ ] Contact form sends to isdlab@srmist.edu.in
- [ ] All event information displays accurately
- [ ] Mobile responsive design functions properly

Final Deliverables

1. **Fully functional website** hosted on Replit
2. **Source code** with comprehensive comments
3. **Documentation** for future maintenance
4. **Performance report** with optimization notes
5. **User guide** for content updates

This comprehensive prompt ensures the creation of a cutting-edge ROBOFEST website that combines modern web technologies with impressive 3D animations, optimized for all devices and designed to showcase the exciting world of robotics competitions.

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1. ROBOFEST_Brochure1.pdf
2. robo-soccer.docx
3. robo-sumo.docx
4. https://wawasensei.dev/tuto/6-techniques-to-make-any-3D-website-responsive
5. https://www.jackredley.design/articles/how-to-make-3d-models-fully-responsive-for-web-mobile-spline-tool
6. https://stackoverflow.com/questions/28749735/how-to-make-animated-404-gears
7. https://www.youtube.com/watch?v=WZSfckOgJXE
8. https://css-loaders.com/mechanic/
9. https://www.iplocation.net/optimizing-3d-models-for-mobile-and-web-applications