

CLAUDE.md

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This file provides guidance to Claude Code (claude.ai/code) when working with code in this repository.

Project Overview

This is a single-page website for **ODES** (Orbital Dynamics and Engineering Solutions), a space technology company focused on mission validation and simulation platforms for the New Space era. The website showcases the company's comprehensive validation platform, team, value proposition, and contact information.

Technology Stack

- **Frontend Framework:** React 18 (loaded via CDN)
- **Styling:** Tailwind CSS (loaded via CDN)
- **Build Tool:** Babel Standalone (for JSX transpilation in browser)
- **Architecture:** Single HTML file with embedded JSX/React components

Project Structure

```
/home/ggalanos/website/
└── odes-website-updated.html      # Main website file (self-contained)
    └── odes-RGB-reverse.png        # Company logo (1000x1000 PNG)
```

Key Architecture Details

Single-File Application

The entire website is contained in a single HTML file (`odes-website-updated.html`) that includes:

- All CSS styling (custom + Tailwind utility classes)
- All React components written in JSX
- All SVG icon components
- Animation definitions and space-themed visual effects

Component Structure

The application follows a modular React component architecture:

1. **SVG Icon Components:** Custom-built icons for features (SatelliteIcon, RadioIcon, ShieldIcon, BoltIcon, RefreshIcon, TargetIcon, ChartIcon, LocationIcon, BuildingIcon, HandshakeIcon, RocketIcon, PersonIcon)

2. Main Components:

- **Navigation**: Fixed header with scroll-based opacity changes
- **Hero**: Full-screen landing section with animated stars and satellite icon
- **About**: Two-column layout explaining the challenge and solution
- **Solution**: Grid of 6 feature cards with icons
- **Value**: Business value proposition with statistics
- **Team**: Grid of 4 team member cards
- **Contact**: Contact information and CTA section
- **Footer**: Simple footer with logo and copyright

3. App Component: Root component that composes all sections in order

Styling Patterns

- **Color Scheme**: Purple gradient (#667eea to #764ba2) as primary brand color
- **Background**: Dark space theme (#0a0e27, #1a1a2e, #16213e)
- **Typography**: Inter font family from Google Fonts
- **Animations**:
 - **animate-float**: 6s infinite floating animation for hero satellite
 - **twinkle**: 3s infinite star twinkling
 - **card-hover**: Lift and shadow effect on feature cards

State Management

Minimal state usage:

- Navigation scroll state (**isScrolled**) - triggers background blur-opacity when scrolling past 50px

Development Workflow

Viewing the Website

Simply open **odes-website-updated.html** in a web browser. No build process required.

```
# Using a local server (recommended for development)
python3 -m http.server 8000
# Then navigate to http://localhost:8000/odes-website-updated.html

# Or directly open the file
xdg-open odes-website-updated.html
```

Making Changes

Since this is a single-file application with CDN-loaded dependencies:

1. Edit the HTML file directly

2. Refresh the browser to see changes
3. No compilation or build step needed

Testing

- Test on multiple screen sizes (responsive design with Tailwind breakpoints: `md:`, `lg:`, `sm:`)
- Verify smooth scrolling behavior between sections
- Check navigation highlights and scroll effects
- Ensure all icons render correctly
- Verify animations perform smoothly

Content Structure

The website presents the following narrative flow:

1. **Hero:** Brand positioning - "Validation Beyond Boundaries"
2. **About:** Problem (65% CubeSat failure rate) → Solution (comprehensive validation platform)
3. **Solution:** 6 core platform features (simulation, validation, hardware-in-loop, testing, tracing, analytics)
4. **Value:** Business benefits and market statistics (€413M opportunity, 94% gross margin)
5. **Team:** 4 team members (3 co-founders + 1 advisor)
6. **Contact:** Location (Athens), backing (EMTECH SPACE), partners (ESA, Open Cosmos), missions (HSD, HELEO, ERMIS)

Key Design Decisions

Why Single-File Architecture?

- Simple deployment (just upload one HTML file + logo)
- No build complexity or dependencies
- Fast iteration during development
- Easy to share and preview

CDN Dependencies

All libraries loaded from CDN:

- React 18 (production build)
- ReactDOM 18
- Babel Standalone (for JSX transpilation)
- Tailwind CSS

This eliminates the need for npm/package management but means the site requires internet connectivity for these resources.

Custom SVG Icons

All icons are hand-crafted SVG components rather than using an icon library. This:

- Reduces dependencies
- Allows precise brand-aligned styling
- Enables gradient fills matching brand colors
- Keeps file size minimal

Important Notes

- The logo file (`odes-RGB-reverse.png`) must be in the same directory as the HTML file
- All anchor links use hash navigation (`#about`, `#solution`, etc.)
- Email contact: `info@odes-space.com`
- No backend or API integrations
- No analytics or tracking code included