

# App Summary - Repo Evidence

## What it is

A Next.js 16 thesis portfolio web app that documents a Vision-Language-Action research project for bimanual LEGO assembly. It organizes the work into task definition, SOTA analysis, limitations, and roadmap sections.

## Who it is for

Primary persona: thesis stakeholders and technical readers who need a concise, navigable view of the research plan and analysis.

## What it does

- Provides dedicated routes for Home, Task, SOTA, Limitations, and Roadmap views.
- Loads structured research content from typed local modules in content/\*.ts.
- Presents analysis visuals with reusable tables, charts, cards, and carousels.
- Shows phased roadmap details, milestones, and phase-specific deep-dive pages.
- Uses framer-motion animations and responsive layouts for interactive navigation.
- Includes Vercel Analytics and Speed Insights instrumentation in the root layout.

## How it works (architecture)

- Shared shell: app/layout.tsx applies global styles, Navigation, Footer, Analytics, and SpeedInsights.
- Route layer: app/\*\*/page.tsx files compose section views and import domain data from content/\*.ts.
- UI layer: components/\*\* provides reusable rendering blocks (task, sota, roadmap, markdown).
- Asset layer: public/ images are rendered through next/image for hero and section visuals.
- Execution model: most pages/components are client-rendered and animated via use client + framer-motion.
- Backend APIs / database services: Not found in repo.

## How to run (minimal)

- Install dependencies: npm install
- Start dev server: npm run dev
- Open <http://localhost:3000>
- Required Node.js version pin (.nvmrc / engines): Not found in repo.