

ONECOREHIVE

Technical Whitepaper

TestScan Architecture Overview

Executive Summary

TestScan is designed as a privacy-first assessment platform for automated answer-sheet recognition. The architecture emphasizes offline processing, modular components and human validation.

Core Design Principles

- Offline-first processing
- Modular architecture
- Human-centered validation
- Scalable deployment

Recognition Pipeline

Image Capture → Alignment → Marker Recognition → Answer Recognition → Confidence Analysis → Human Review → Final Results

Design Philosophy

Reliability over complexity. Deterministic processing. Human supervision remains authoritative.