Project Milestones and Timeline

Team Wunderbar

April 7, 2025

Weekly Project Timeline and Milestones

Week	Dates (Mon–Sun)	Milestones and Tasks
Week 1	April 7 – April 13, 2025	• Set up the project repository. • Define folder structure and annotation format. • Finalize task board and project management workflow. • Conduct kickoff meeting to align goals and responsibilities.
Week 2	April 14 – April 20, 2025	• Begin Phase 1 annotation on original images for Model 1 (YOLO). • Set up initial YOLO environment and baseline configuration.
Week 3	April 21 – April 27, 2025	• Continue Phase 1 annotation. • Train Model 1 (YOLO) with partial annotated data.
Week 4	April 28 – May 4, 2025	• Finalize YOLO training and bounding box outputs. • Generate cropped outputs from detected regions.
Week 5	May 5 – May 11, 2025	• Start Phase 2 annotation on cropped regions for symbol classification. • Begin training Model 2 to classify domain-specific symbols.
Week 6	May 12 – May 18, 2025	• Continue symbol classification annotation. • Improve Model 2 accuracy and finalize training.

Week 7	May 19 – May 25, 2025	• Begin Phase 3 OCR annotation on cropped image regions. • Train Model 3 for text and ID extraction.
Week 8	May 26 – June 1, 2025	• Finalize OCR model (Model 3) and test integration with symbol output. • Begin rule and formula development for feasibility calculations.
Week 9	June 2 – June 8, 2025	• Integrate all models (YOLO, symbol, OCR, calculation). • Develop Flask frontend interface. • Set up Docker environment for deployment.
Week 10	June 9 – June 15, 2025	• Final QA for pipeline and frontend. • Deploy complete application using Docker. • Validate calculations and usability through interface. • Submit project presentation and deliverables.

Annotation and Model Workflow

Model 1: Object Detection (YOLO)

- Annotate 300–400 images for key object regions.
- Train YOLO model to detect target zones from input images.
- Output includes bounding boxes used for further processing.

Model 2: Symbol Classification

- Use YOLO output to crop relevant zones.
- Annotate and classify symbols (arrows, signs, icons, etc.).
- Train a symbol classification model to label cropped regions.

Model 3: OCR (Text Recognition)

- Annotate cropped zones for text extraction.
- Train OCR model to extract IDs, codes, or structured text.
- Combine outputs with symbol classifications.

Model 4: Rule-Based Feasibility Analysis

- Use outputs from previous models as input.
- Apply domain-specific formulas and rule logic.
- Derive feasibility values and interpretations.
- Export results to Excel/CSV reports.