

Pathfinder Project Plan

Fall Semester (9/3 - 12/20)

Project Site -9/25

- Establish and design a website to showcase progress.

Milestone 1 - 10/9: Research & Ideation

- Define user needs and determine consumer base: conduct interviews/ find value to bring to visually impaired individuals.
- Competitive analysis: evaluate existing navigation aids.
- Determine requirements of consumers.
- Initial design sketches and wireframes for Pathfinder glasses.
- Begin branding and update project website.

Milestone 2 - 11/27: Prototype Development & Design Process

- Create a project plan: Outline tasks and assignments to guide the project throughout the year.
- Develop multiple design concepts: Weigh the pros and cons of each.
- Create system diagrams and process flow charts.
- Hardware selection and specifications: Research and choose components (camera, speakers, processors, etc).
- Create a test plan for the design: use appropriate materials, systems, and software.
- Software planning: begin researching and building the foundation of AI and navigation algorithms.

Team Responsibilities & Assessments- 12/4

- Finalize roles in project: hardware, software, testing.
- Determine and assess each group member's contributions to the project.

Presentation - 12/11

- Design prototype walkthrough: demonstrate initial design.
- Collect feedback from users and advisors.

Winter Intersession (1/2 - 1/20)

Refine Design/Prototype

- Hardware design: integrate selected components into a compact form.
- Complete 3D modeling and finalize design concepts
- Begin testing AI algorithms.

Spring Semester (1/21 - 5/9)

Milestone 3 - 2/26: Advanced Prototype

- Refine navigation algorithms.
- Assemble glasses prototype: camera, processor, and speaker integration.
- Test hardware & software functionality.
- Test in real-world environments (e.g., street navigation).

Poster Deadline - 3/19 to 4/9

- Draft poster design and refine based on feedback.
- Conduct Pathfinder presentation.

Milestone 4 - 4/23: Final Development

- Testing plan: stress testing in different conditions.
- Finalize assembly of Pathfinder glasses.
- Discuss potential future improvements, including user customization and additional features.

Innovation Expo - 5/9

- Showcase Pathfinder at the expo.

- Gather user feedback to iterate future versions.