

# PathPlanning-AR Documentation:

## Root Directory Items:

- PathPlannerAR Folder → Contains all files that make up project
- PathPlannerAR.xcodeproj → Xcode project file directly executable in Xcode IDE

## Project Files in PathPlannerAR Folder:

- Model
  - AlgorithmCommon.swift → functions common to all path-planning algorithms
  - AlgorithmHandler.swift → calls appropriate path-planning algorithm run func
  - AlgorithmSimulator.swift → contains logic for all path-planning algorithms
  - AlgorithmStepper.swift → unfinished algorithm step-through functionality
  - Grid.swift → contains logic for virtual objects on ground-plane
  - Heap.swift → contains logic for Heap data structure
  - PathModel.swift → contains path detail information
  - PriorityQueue.swift → contains logic for priority queue functionality
- View
  - LaunchScreen.storyboard. → User Interface for launch screen
  - Main.storyboard → User Interface for all 3 application screens
- Controller
  - AlgorithmOptionsController.swift. → UI element design / button logic – screen 1
  - ViewController.swift → UI element design / button logic – screen 2
  - pathDetailController.swift → UI element design / button logic – screen 3
- art.scnassets → all image files used for button icons and imported 3D models
- Assets.xcassets → all image files used for screen backgrounds

## How to Run Mobile Application:

Assuming you have a Mac OS device with Xcode:

1. Clone / download project code repository from :  
<https://github.gatech.edu/ddekime3/PathPlanning-AR>
2. Go to project directory and open PathPlannerAR.xcodeproj
3. Plug iOS device into computer
4. Within Xcode environment toward top left, change “Generic iOS Device” to the name of your plugged in device assuming it is recognized by Xcode.
5. Click play to build the project. Application will automatically download and run on your device