**[3h 0m] Tonight (v1.1)** *bare minimum for iOS release*

* **[20m]** Create Repo
  + Push to Repo
  + Pull to MacBook
    - Get Running on MacBook
* **[40m]** AutoCam
  + Create a Camera GameObject that has the Waypoint system and follows the track like the CarAI players.
    - This should work pretty well and be easy without collisions enabled
* **[60m]** Win Condition
  + Place win zone on track (place it close to start position first)
  + Detect if AI or Player Cars enters the Finish Zone…
    - Give the car a ‘Place’
  + Start AutoCam mode
  + UI
    - Show Place & Time eg… “You finished 1st in 130.33 Seconds!”
    - MainMenu button
* **[40m]** Game Manager
  + Main Menu Mode
    - On-load (app)
      * Show main menu
      * Record initial AI & Player car transform settings
      * Start AutoCam
    - UI
      * Start Button
        + RestartButton()
      * Exit Button
        + How to actually exit the app?

<https://docs.unity3d.com/ScriptReference/Application.Quit.html>

* + In-Game Mode
    - UI
      * Display Race Timer
      * Reset Button
        + Call ‘ResetCar()’
      * Restart Button
        + Hide main menu
        + Stop AutoCameraMode
        + Set all AI Cars and Player Car to initial positions
      * Main Menu Button
* **[20m]** Icon

**ToDo**

* **[60m]** ResetCar()
  + Get the closest Point along the waypoint path?
  + How will this account for rotation?
* **[40m]** Accel / Brake controls
  + How to correctly Accelerate / Brake the Vehicle?
    - <https://www.youtube.com/watch?v=M1rZm740MUQ>
    - Didn’t the tilt controls do throttle properly?
      * For now just default to Tilt controls
* Create Car Prefab
  + Holds the AI Waypoint Version with on/off flag
  + Holds All Car Models
    - How this work for setting Wheel / Light transforms?
* Better car handling
  + Try these settings: <https://answers.unity.com/questions/1228216/unity-5-good-parameters-for-vehicle.html>
    - Does setting a physic material to the track improve things?
* UI
  + Main Menu
    - Select Track
      * Show each track thumbnail with radio checkbox
      * Tracks can be locked / unlocked
    - Select Car
      * For now just Unity car & super car
    - Race Button
  + In Game
    - Menu Button
  + Settings Menu
    - Controls
      * Tilt
      * Joystick
    - Music volume/on/off
    - Sound volume/on/off
    - Complete game reset…
      * Track unlocks
      * Car unlocks
* 6 Tracks (12 Versions with day & night)…
  + Import Each Track with Day / Night versions
    - Each Track gets its own game object with ‘TrackScript’
      * TrackScript vars:
        + Name
        + Thumbnail
        + Stars required to unlock
    - Each Track should have the same position / rotation
    - Each Track (Day & Night)
      * Has it’s lights positioned correctly
  + Create AI Waypoints for each Track
    - Uphill / Downhill runs
      * Reverse waypoint order?
      * Reposition cars at opposite end of track
* Music
* Movie Camera game asset
  + <https://assetstore.unity.com/packages/essentials/cinemachine-79898>
    - Helicopter flyovers using the Dolly shot?

**Considerations:**

* Bonuses
  + Drafting Bonus
    - If you’re in a box behind another car
  + Drifting Bonus
  + Nitro Bonus
* Multiplayer?
* Traffic
* Police chase
* Leader board?
* Car Damage
  + Would need models with damage levels
* Mini track map (is it possible to use the waypoint system for this?)
* Nitrous
* Slow Mo Mode (won’t work with multiplayer)
* Rewind (won’t work with multiplayer)