

CarPlay Jumpstart

Macstock X

Kirschen Seah 2026-07-08

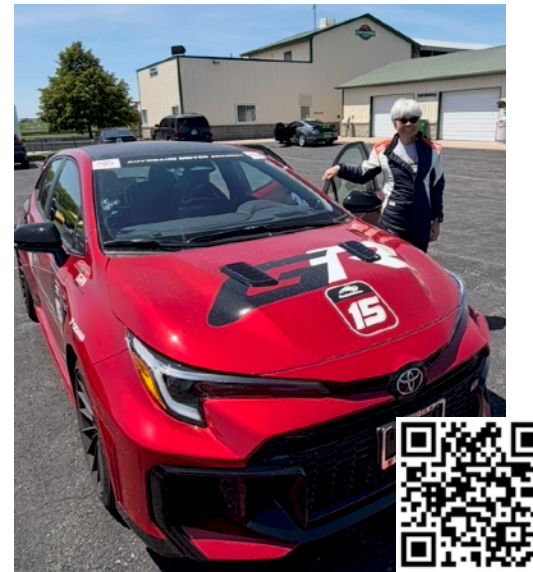
About Kirschen...

Software geekette

Apple aficionado since 1978

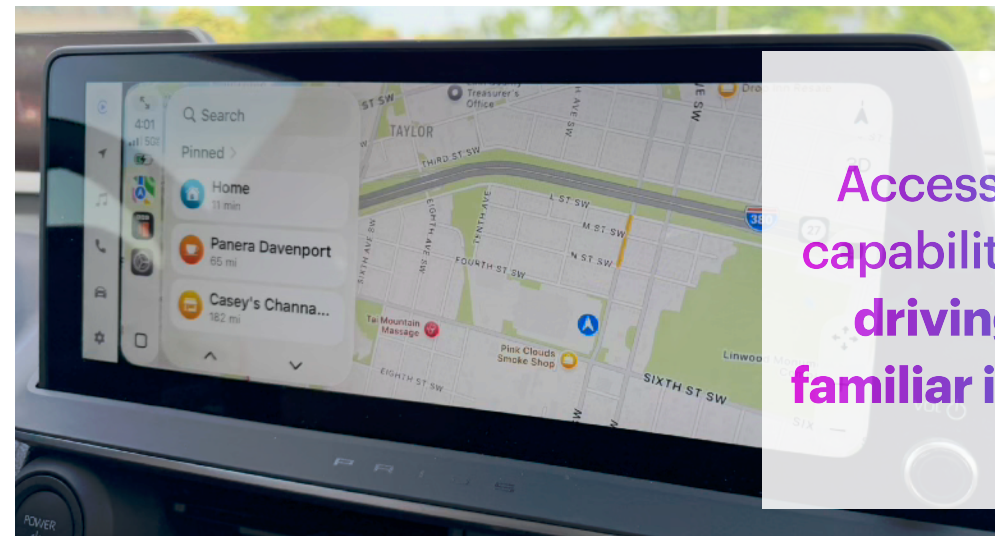
Car enthusiast / Bicyclist / Pilot

Retired 😊



<https://www.freerangecoder.com>

What's CarPlay?



Access iPhone
capabilities whilst
driving using
familiar interfaces

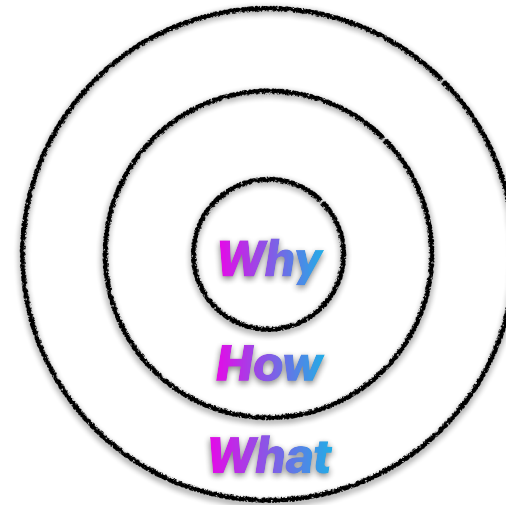
<https://www.apple.com/ios/carplay/> | <https://en.wikipedia.org/wiki/CarPlay>

“Remote Desktop” for iPhone
Initial release 2014-03-10

Familiar interfaces - touch and voice (Siri)
“Familiar but different” - usually optimised for single touch

iPod connectivity - very expensive accessory for my dock connector iPod (2007 Honda Civic Si)

Overview

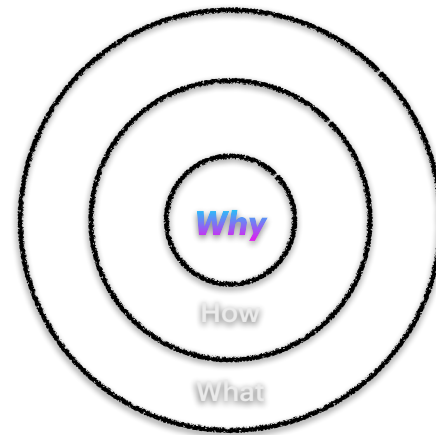


Simon Sinek – “Start with Why”

Simon Sinek - posited The Golden Circle - “Start with Why”
Studied people and companies to distill their attributes for success - including Apple

WHY - Motivation: purpose, cause or belief
* (Allison Sheridan) - the problems we'd like to solve
HOW - Achieve: processes & methods
WHAT - Consequence: results or outcomes

Why



Hands-free laws

CarPlay availability

Integrate iOS features

You have the parts

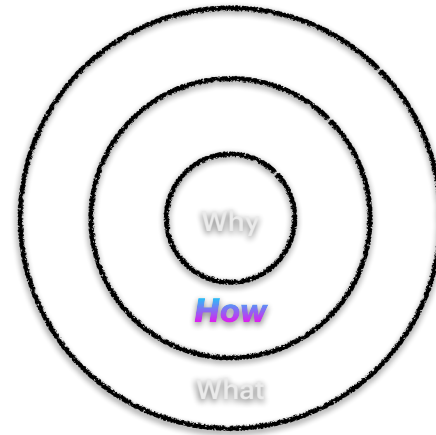
Many states have enacted laws prohibiting holding and using personal electronic devices whilst driving

Many vehicle brands have integrated CarPlay into their infotainment displays

Integrate iOS features such as apps and Siri

Parts - car with CarPlay and iPhone

How



iPhone 5 and later

Does my car play with
CarPlay?

Connections

Setting up

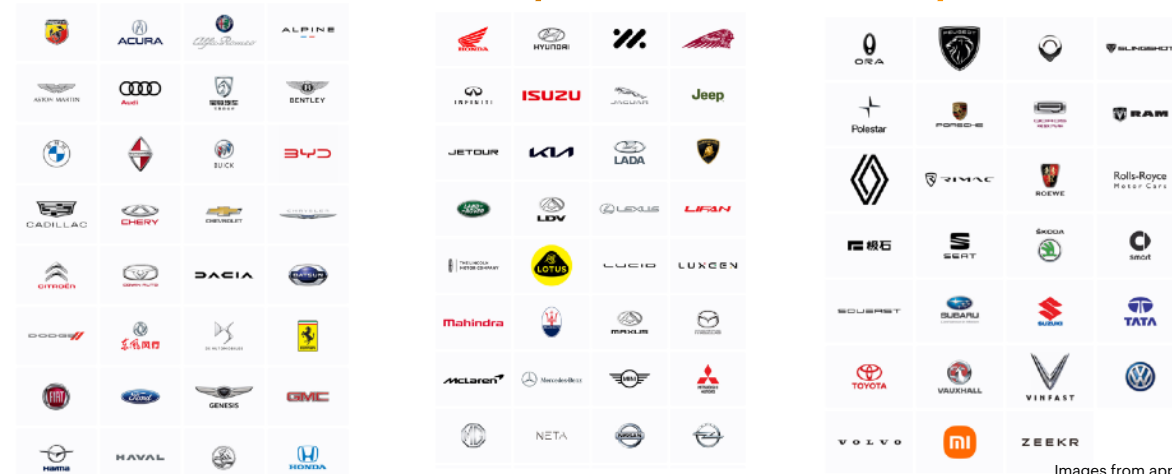
Configuration

Compatible iPhones - <https://www.apple.com/ios/carplay/#footnote-4>

Determine if my vehicle has CarPlay
Connect to CarPlay
Setting up
Configuration

How

Determine if my vehicle has CarPlay



<https://www.apple.com/ios/carplay/available-models/>

Includes motorcycles - Honda, Indian, Suzuki

Apple says...

CarPlay support is either standard or available as an option on many new 2016 cars and later, with some manufacturers offering software updates for earlier models.

Notable exceptions: Tesla (apparently in the works), Rivian

GM Phasing out in 2028

<https://www.motortrend.com/news/no-more-apple-carplay-or-android-auto-for-any-gm-vehicles-gas-or-electric>

How

CarPlay Versions



Introduced in 2014

CarPlay 2 in 2022

CarPlay Ultra 2025 - integrates into car's instrument cluster and infotainment display - offers customization and controls for car systems
Launched in Aston Martin vehicles

Apple says...

CarPlay support is either standard or available as an option on many new 2016 cars and later, with some manufacturers offering software updates for earlier models.

CarPlay Ultra is available on select 2024 and later models.

Some models may support CarPlay or CarPlay Ultra only in certain configurations, and not all models are available in all areas. CarPlay and CarPlay Ultra support is subject to change. See your dealer for details.

Aston Martin DB5 (with modifications)



How

No built-in CarPlay



Replace head unit
Standalone unit



Images from [amazon.com](https://www.amazon.com)

Podfeet: [You CAN Add a \(Good\) CarPlay Screen to Older Cars](#)

Retrofit

Head unit - radio / CD / cassette player

Requires wiring harness for specific car for power and audio out

Cost - \$100 and more

Standalone unit - mounts to windshield, vents, sits on dash (check with your state's laws regarding obstructing driver)

How

Connections

Wired via USB

Need physical cable to iPhone

Plus side – charging

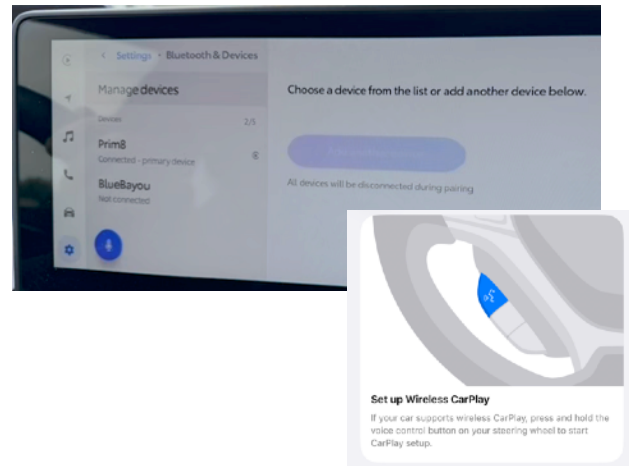
Wireless

Can convert wired CarPlay to wireless via a dongle which plugs into the vehicle's USB port

During the initial pairing process, the iPhone exchanges network credentials with the CarPlay receiver over Bluetooth. Once paired, CarPlay data is transmitted over a two-way Wi-Fi connection between the phone and the vehicle. (From Wikipedia CarPlay article)

How

Setting up



Manufacturer dependent

Car's Settings pages

Can add more than one device

Set up Wireless CarPlay

Press and hold Voice Control button

Bluetooth pairing

Note: Car's setting page may ask to download contacts to car's system to use native calling (useful if do not have iPhone to use CarPlay). Watch for potential limitations on number of contacts. I do not use this as I always have an iPhone with me and use Siri to dial contacts

Pairing with car typically allows for other manufacturer functionality - e.g. their app integration.

How

Configuration

iPhone Settings

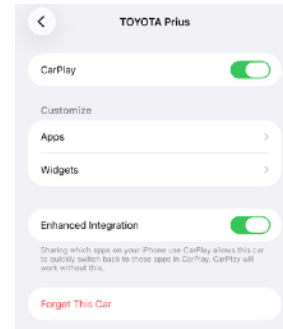
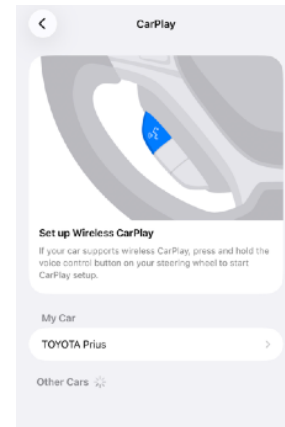
In-car CarPlay Settings

App grid

Widgets

How – Configuration

iPhone Settings



List of linked cars

Apps & Widgets

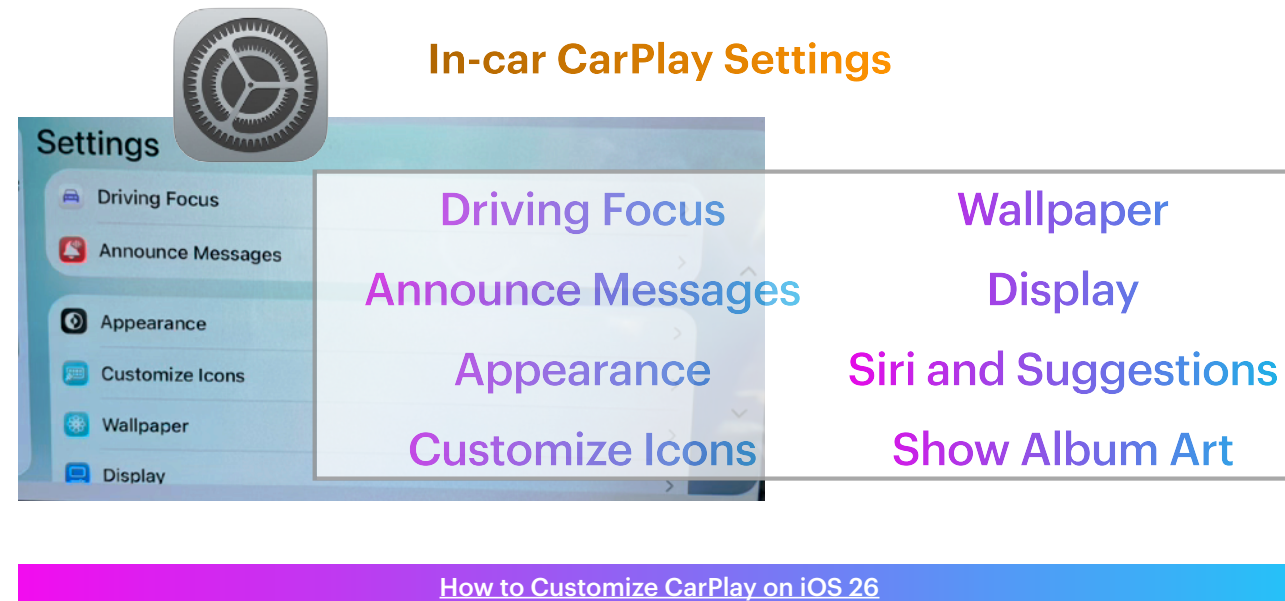
Enhanced Integration

Settings > General > CarPlay

Enhanced Integration - e.g. turn by turn indication on main instrument cluster, AC/Heat controls in CarPlay
https://www.reddit.com/r/CarPlay/comments/1au86zt/carplay_enhanced_integration

How – Configuration

In-car CarPlay Settings

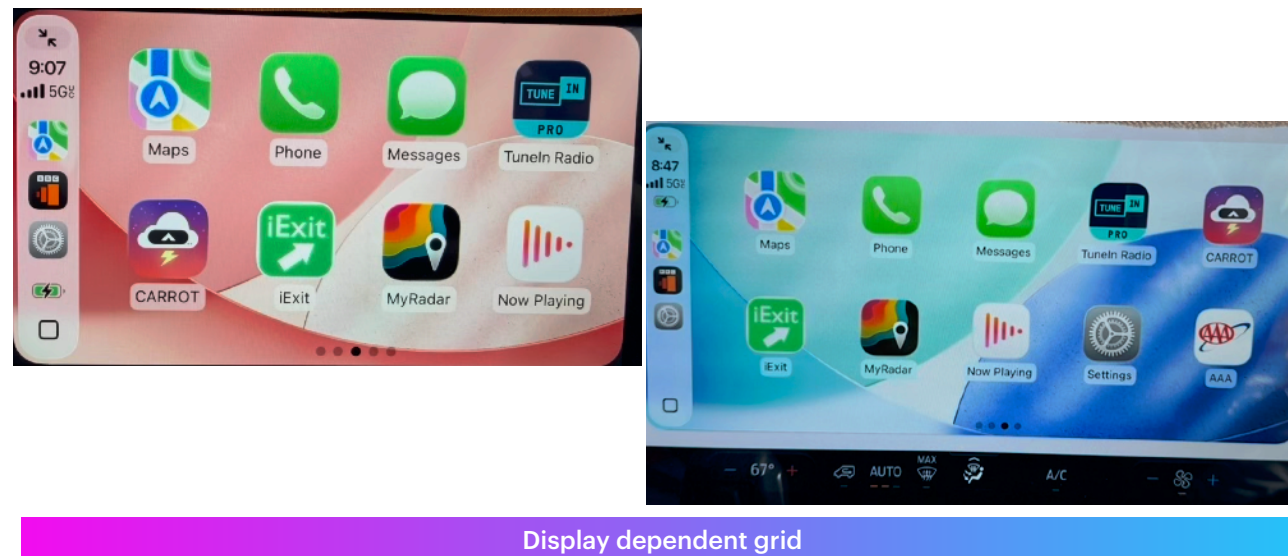


Driving Focus: Turn on Driving Focus mode
Announce Messages: Siri announces messages
Appearance: Dark / Light / Auto
Customize Icons: Default / Dark / Clear
Wallpaper: Can't pick own
Display: Smart display zoom
Siri and Suggestions
Show Album Art: Now Playing

List appears to be car dependent

<https://support.apple.com/guide/iphone/change-settings-in-carplay-iph6ade13329/ios>
<https://lifehacker.com/tech/a-complete-guide-to-customizing-apple-carplay>

How – Apps

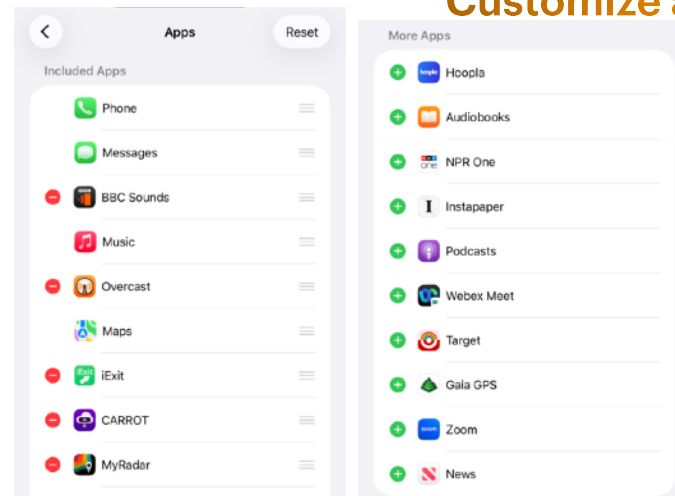


Dependent on car's infotainment display
Left - 8", right - 12" diagonal

Note: Remember the grid size e.g. 2x4, 2x5 (this will become evident in next slide)

How – Configuration

Customize app grid



Arrange using iPhone

Grid dimensions!

Scroll to bottom to add
apps

iPhone: Settings > General > CarPlay > Customize Apps

Drag on three line grabber to reposition apps

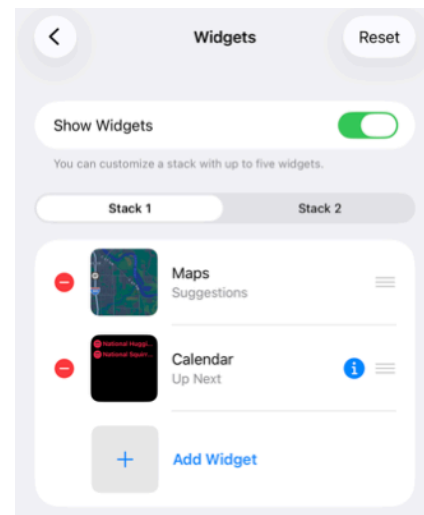
Apparently no limit to number of pages of apps

How – Widgets



Swipe all the way to the left
Columns of widgets - number is dependent on vehicle

How – Configuration



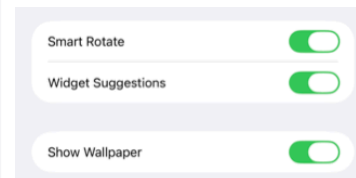
Customize widgets

Stacks

Smart rotate

Suggestions

Wallpaper



iPhone: Settings > General > CarPlay > Customize Widgets

Much like iOS widgets

Note: Previous slide shows Sarah's iPhone CarPlay widgets

How – Views

CarPlay Home



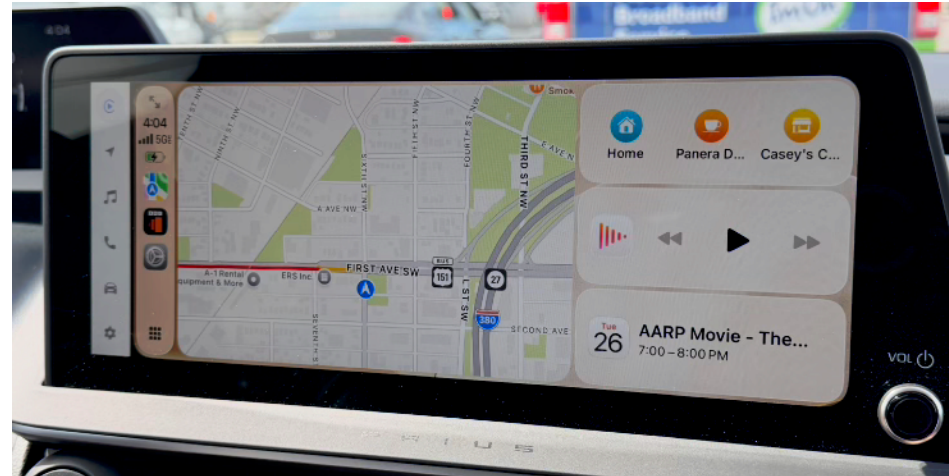
App screen - swipe left / right to navigate, tap app to launch

Note: the status & recent app bar is on the left for left-hand drive cars and right for right-hand drive cars

Note: Leftmost column of controls is Toyota's

How – Views

CarPlay Dashboard

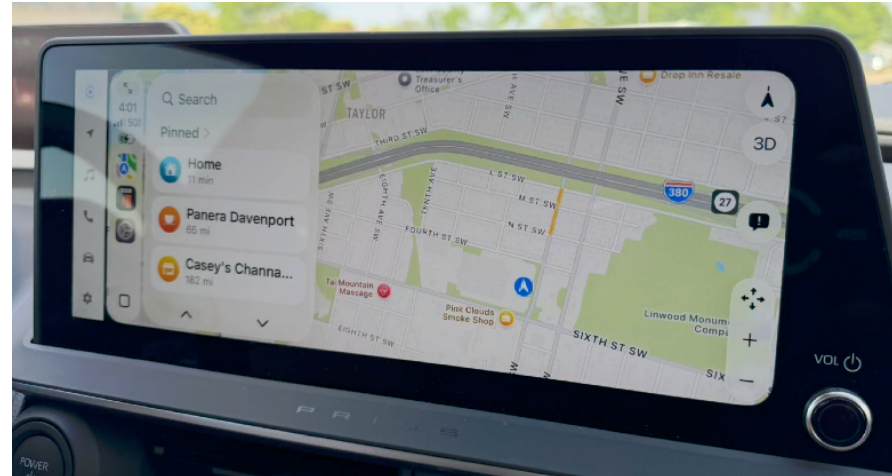


Multi-pane view - tap app to activate it
Maps - directions shows in a pane

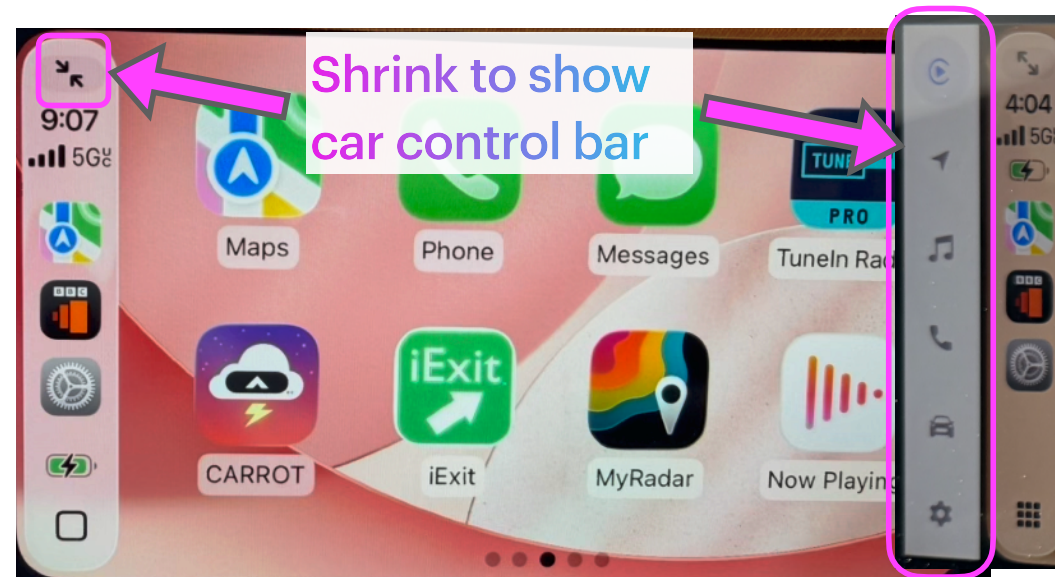
Note: CarPlay decides what content appears

How – Views

Single app



How – Using



Car control bar - to open screens provided by manufacturer

Some cars show car infotainment panels when CarPlay panel is shrunk

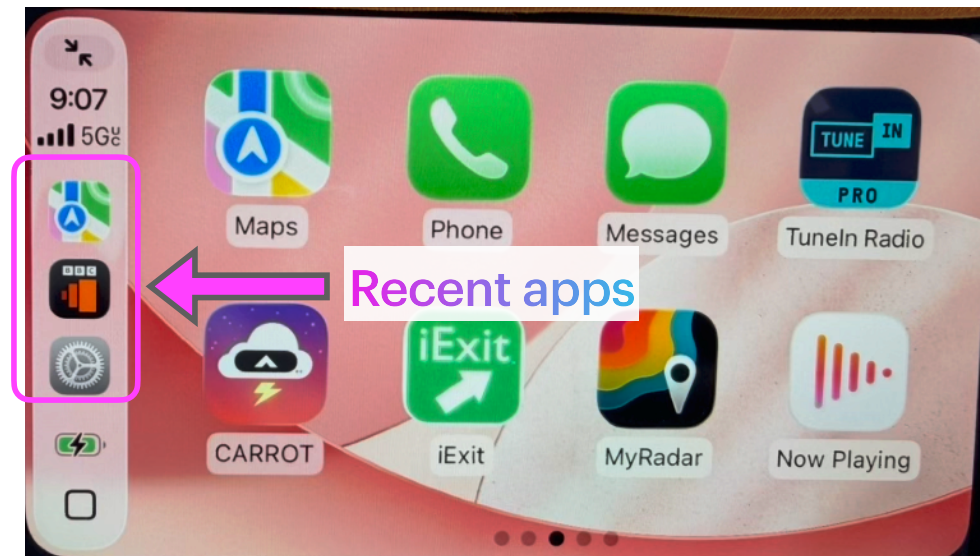
Can use vehicle's built-in controls to control CarPlay

<https://support.apple.com/guide/iphone/use-your-vehicles-built-in-controls-iph5f6b2beb5/ios>

How – Using



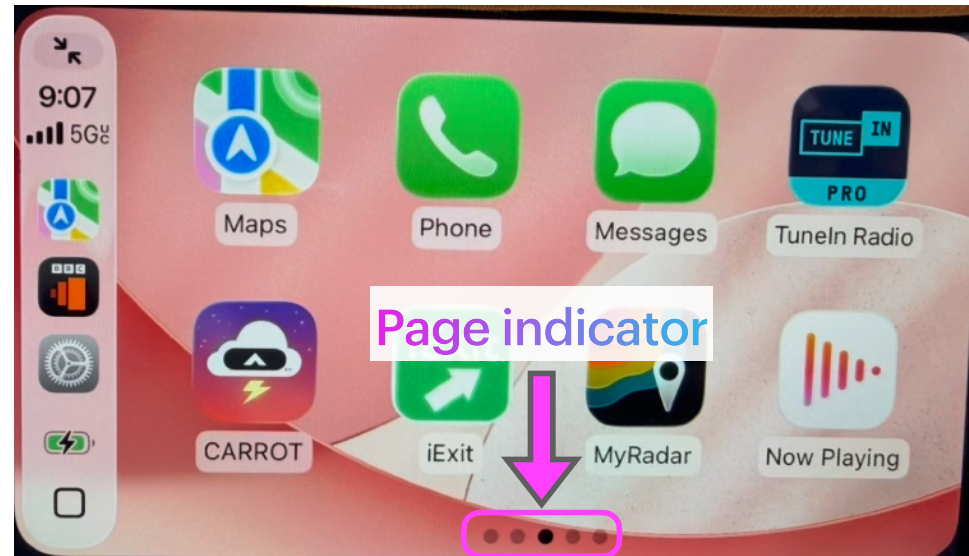
How – Using



How – Using

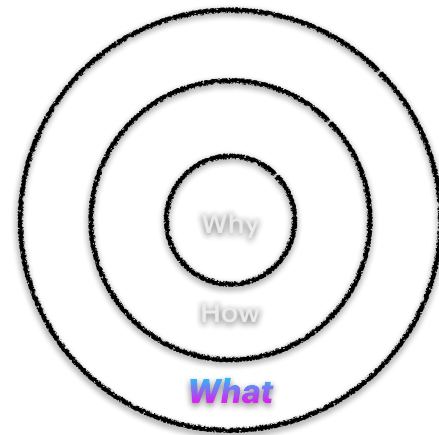


How – Using



Order
Widgets
CarPlay Dashboard
App pages

What



Apps & Capabilities

Siri

Use cases



Different user experience when **stationary**
than when **moving**

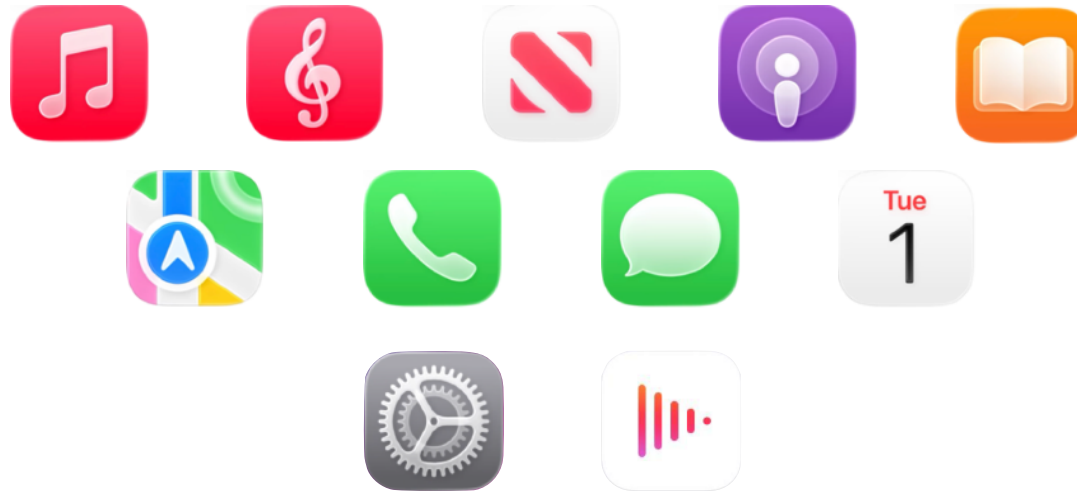
Examples

Number of playlists accessible in Apple Music

Search in maps - can use keyboard when stationary

What

Apple apps

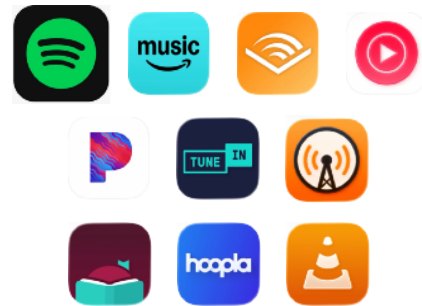


Audiobooks
Calendar
Classical
Maps
Messages
Music
News
Now Playing
Phone
Podcasts
Settings

What

Third party apps

Audio



Navigation



Manufacturer's apps



[Apple's CarPlay page](#)

Audio

Spotify, Amazon Music, Audible, YouTube Music

Pandora, TuneIn Radio, Overcast

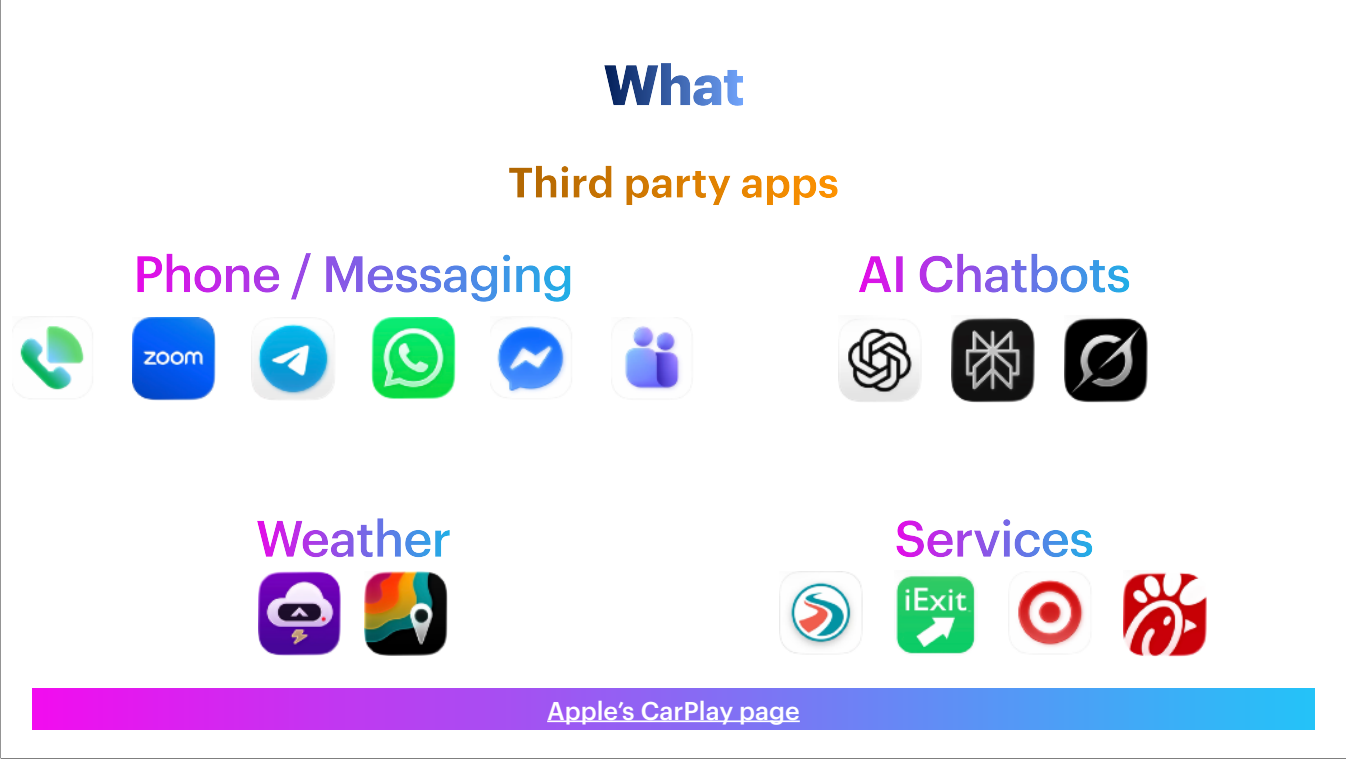
Libby, Hoopla - public library audiobooks

VLC

Note: Apple Music streams some radio stations (e.g. BBC Radio) live using Tune In Radio

Navigation - Waze, Google Maps, TomTom Go

Manufacturer's - Ford, Toyota. Check with your manufacturer



Phone / Messaging - Google Voice, Zoom, Telegram, WhatsApp, Messenger, MS Teams

Weather - CARROT, MyRadar. Provide weather along a route

AI Chatbots - ChatGPT, Perplexity, Grok

Services - GasBuddy, iExit (recommended, shows facilities at upcoming highway exits), Target, Chik-Fil-A
Charging - ChargePoint

What

Capabilities

Live activities

Enable in app's settings on iPhone

SharePlay

*Turn on "Discoverable by Nearby
Contacts" in iOS Music settings*

[See Apple Support page](#)

Car keys

Check with manufacturer

Screenshot

*iOS Settings > General >
Screen Capture >
CarPlay Screenshots*

Live activities - appear as panels in CarPlay Dashboard
Info: e.g. flight arrival time

SharePlay -
<https://support.apple.com/guide/iphone/play-music-together-in-the-car-iph8ac7e8a46/26/ios/26>

Car keys - use iPhone or Apple Watch to unlock.

Apple says...

Beginning with select 2021 car models, you can unlock and start your car with iPhone. Sharing keys with friends or family is easy too. Car keys will even work for up to five hours after your iPhone battery runs out.

Supported on iPhone XR or later, and Apple Watch Series 5 or later. Support for car keys may be available only on certain car models and only in certain configurations, and not all models are available in all areas. Support for car keys is subject to change. See your dealer for details.

Screenshot - enable or disable in iOS Settings > General > Screen Capture : CarPlay Screenshots

Use Home + Side Button on iPhone - captures both iPhone and CarPlay screens as separate screenshots

What

Siri

Triggering

Say "Siri"



Phone a contact

Message reading & replying

Voice control

CarPlay: Settings > Accessibility > Voice Control

Use Siri in your car on iPhone

Siri activate: Say "Siri", press car's voice command button, press & hold home / app soft button on lower left
Uses car's microphones

Voice Control on - CarPlay is always listening for commands
Say, for example, "Open Maps," "Pan left," or "Go back."
Don't need to precede with Siri wake word
I have this option set to off

Use Voice Control commands to interact with CarPlay
<https://support.apple.com/en-ke/guide/iphone/ipha24839833/ios>

What

Use cases

Driving to a destination

Sending a text message

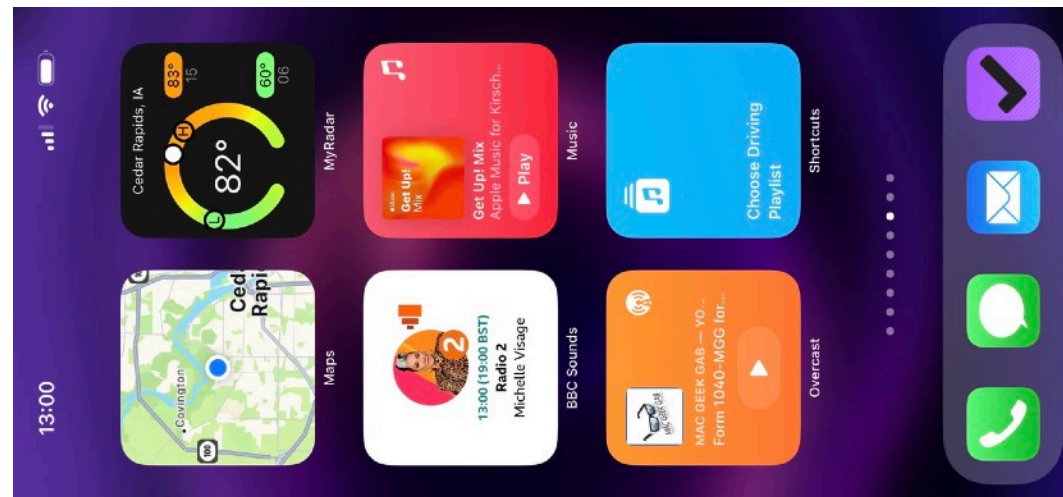
Playing music

Checking weather

Taking a call

Listening to podcasts

Alternative to CarPlay



Mount an iPhone in landscape mode (in compliance with local laws)

Set up iPhone pages with large icons
Can use Driving focus mode to set pages
Use Apple Watch / Siri to control

Demo

1. iPhone video out demo of settings
2. Video of some CarPlay functionality

Insert reference for video
Pause and talk about Maps content etc

Limitations whilst driving

Apple Music playlists

Access to Contacts

Messages are read

Search via voice

Maps, Contacts

Number of playlists is limited - use pinned playlists for favorites

Messages are read instead of text being displayed

Limitations whilst moving

<i>Apple Music</i>	Limited list of Playlists
<i>Incoming Messages</i>	Read by Siri
<i>Phone, Messages</i>	Limited list of Contacts
<i>Search (Maps, Contacts)</i>	Using Siri

Number of playlists is limited - use pinned playlists for favorites

Messages are read instead of text being displayed

Pros & Cons

Pros

Consistent UX
Familiar iOS apps
iPhone + Car

Cons

Functionality disabled
when driving
CarPlay apps not marked in
App Store
Some UX issues

Keyboard for search available when car is stationary

Limited Playlists

* workaround - use Pins

CarPlay apps not marked as such, unlike

UX Issues

* Recent apps shows currently open app as top in list, would be better to have last used app in that position (e.g. to toggle between two, such as weather and map/directions)

Fixing Issues

Reset connection

Bluetooth / WiFi / Wired

Restart

Infotainment system / iPhone / Car

Re-Pair iPhone to car

Caution! Not when driving

Turn off / on Bluetooth, WiFi
Switch to Wired connection

Restart infotainment system - depends on car

Re-pair iPhone

Our van setup



2022 Ford Transit 350 Cargo Van

Two MagSafe chargers in RAM mount holders powered by a dual USB-C 12V plug
Grey microfiber towel to protect display housing (forward facing) from sun's heat in summer
Using wireless CarPlay with 12" diagonal Ford Sync infotainment system
Van is capable of wired CarPlay as well (USB-A)

Links? See Extra Credit

Extra Credit slides after final slide

One more thing...

Apropos Jumpstart...

Quick Tip – Jumpstart Device

Preserve battery power when replacing car 12V battery

Don't lose settings!

Battery conditioner / charger

Cars are always ON and connected

Maintain 12V battery charge when car is not used for days

Jumpstart device – rechargeable battery brick which has 12V battery terminal clips. Provides power to jump start vehicle. Usually USB rechargeable.

Examples - Noco, Craftsman

Connected - software updates, telemetry, data about tyre pressure etc for car's app

e.g. when on vacation

Don't get caught - Prius 12V battery went flat and car won't start even when charge remaining in traction battery

Jumpstart / Battery conditioner



<https://no.co>

Not affiliated with Noco - just satisfied customer
Has great variety of cables & accessories
Other products as well

Questions?

Always remember that #1 task is to drive the car!

Show Sarah's hot lap video

Slides & Content

<https://www.freerangecoder.com>



Slides and other content posted at Free Range Coder

Extra Credit

Extra Credit

Saving Routes from Maps

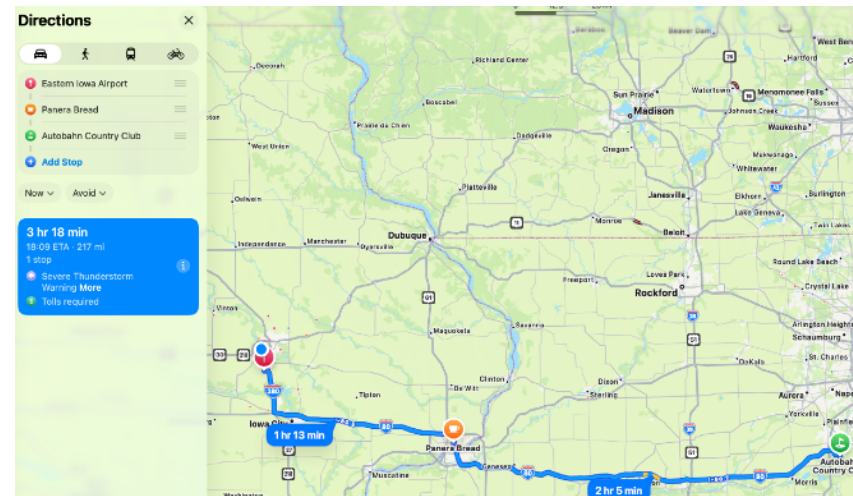
macOS and iOS

Links

Save Route in Apple Maps – macOS

Save Route in Apple Maps – macOS

Create route in Maps



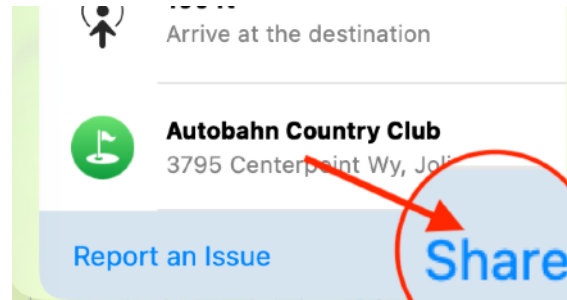
Save Route in Apple Maps – macOS

Click on Info ⓘ



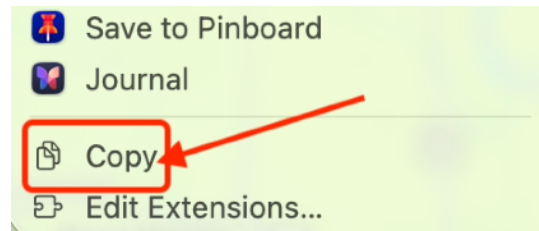
Save Route in Apple Maps – macOS

Scroll to Bottom and Click on “Share”



Save Route in Apple Maps – macOS

Select “Copy” from Share menu

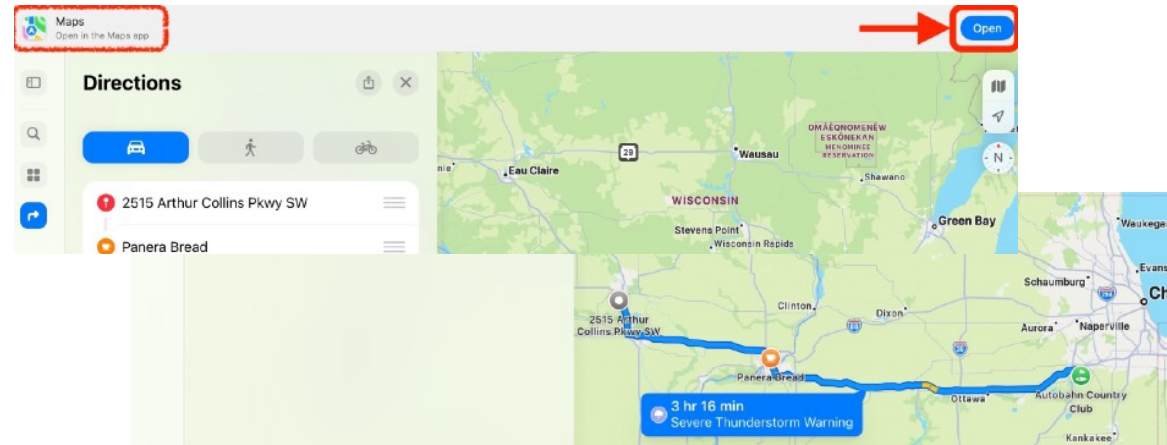


URL corresponding to route is copied to Clipboard (Format: https://maps.apple/r/*****)

Can save in Notes etc
Unsure how long URL will be kept by Apple

Save Route in Apple Maps – macOS

To use – Paste URL in Safari and Go

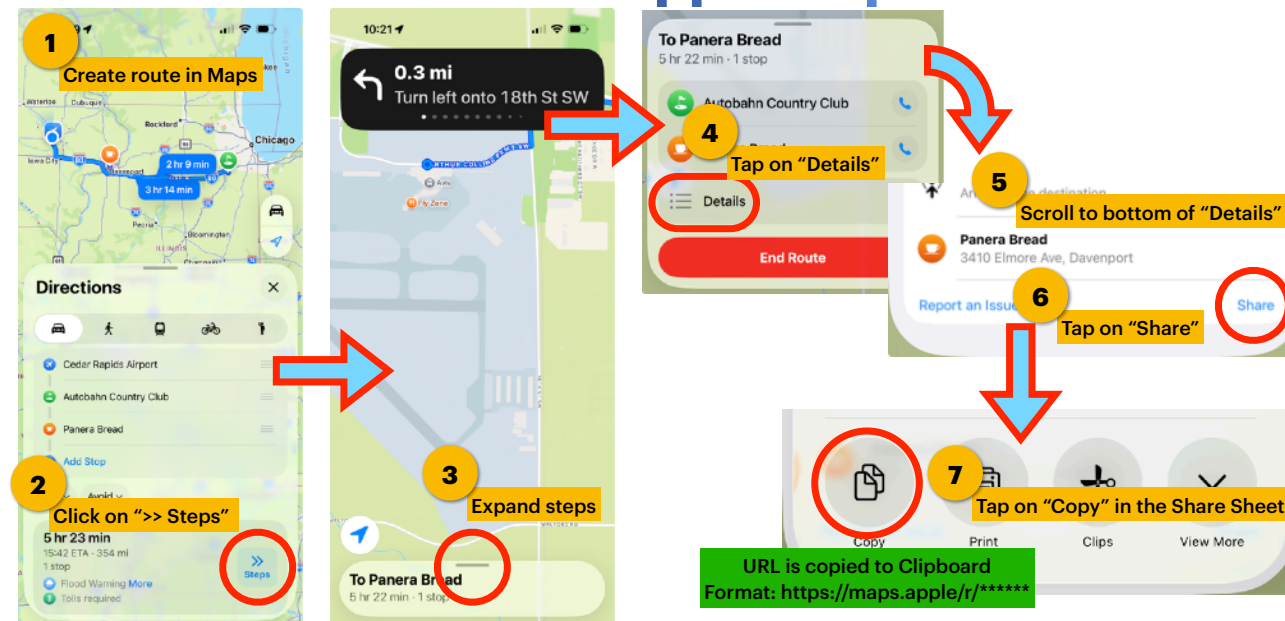


Click "Open" to open route in Maps

Takes a bit of time to load in Maps

Save Route in Apple Maps – iOS

Save Route in Apple Maps – iOS



Links

Overview

[iOS - CarPlay - Apple](#)

[iOS - CarPlay - Available Models - Apple](#)

[Intro to CarPlay and iPhone - Apple Support](#)

[CarPlay | Apple Developer Documentation](#)

[Apple CarPlay Ultra is here – everything you need to know about Apple’s smarter in-car upgrade — Stuff](#)

Features

[Play music together in the car using SharePlay and CarPlay on iPhone - Apple Support](#)

[Use your vehicle's built-in controls to control CarPlay - Apple Support](#)

[CarPlay in iOS 26 has my top new Apple Music feature, here's how to use it — 9to5Mac](#)

[4 Cool Things That You Can Do With Apple CarPlay — BGR](#)

Retrofits & Upgrades

[You CAN Add a \(Good\) CarPlay Screen to Older Cars - Podfeet Podcasts](#)

[Can You Add \(Good\) CarPlay and Android Auto to Older Cars with the 7" LAMTTO Display? - Podfeet Podcasts](#)

[Cut the CarPlay cord with this slick adapter — Macworld](#)

[You Can Add Apple CarPlay To Your Car With This 'Plug And Play' Wireless Accessory — BGR](#)

Apps

[How to install apps in Apple CarPlay](#)

[21 best Apple CarPlay apps every driver needs | Toms Guide](#)

[Best CarPlay apps in 2026](#)

[CARROT Weather 6.2 - 512 Pixels](#)

[CarPlay just got even better with three exciting recent app updates — 9to5Mac](#)

[5 Bizarre Apple CarPlay Apps You Never Knew You Wanted — BGR](#)

[iOS 26.4 adds a new category of CarPlay apps — 9to5Mac](#)

[iOS 26.4 Brings CarPlay Support for ChatGPT, Claude and Gemini - MacRumors](#)

[You can now talk to ChatGPT Voice via CarPlay | Mashable](#)

[12 Of The Best CarPlay Apps I've Tried And Can't Live Without — SlashGear](#)

Vehicles

[No More Apple Carplay or Android Auto for Any GM Vehicles, Gas or Electric](#)

[CarPlay ruined every other vehicle for me — Macworld](#)

[GM Adds Native Apple Music, but Its EVs Still Don't Get CarPlay Despite the Software's Popularity — Car and Driver](#)

[3 Popular Car Models That Are Removing Apple CarPlay — BGR](#)

[Ford Reconfirms Apple CarPlay Support Isn't Going Anywhere — BGR](#)

Siri

[How to Control Android Auto or Apple CarPlay With Your Voice While Driving | WIRED](#)

[Use Siri in your car on iPhone - Apple Support](#)

Customization

[How to Customize Apple CarPlay in Your Car |
Lifehacker](#)

[10 Hacks Every Apple CarPlay User Should Know —
Lifehacker](#)

Car Specific Power Cycle

Toyota / Lexus 3 Second Rule (YouTube)

Press and hold Infotainment Power button for 3 seconds

How do I perform a key cycle on my Ford?

i.e. turning your vehicle off and back on

Toyota 3 Second rule

In a Toyota or Lexus, holding function buttons e.g. infotainment system power button, for 3 seconds does special things. Infotainment system power button 3 second hold power cycles the infotainment system.

Ford Key Cycle

A key cycle is an easy way to refresh the vehicle's SYNC®* system by turning the vehicle off and back on. A key cycle can be useful when the screen is frozen.

1. Turn the vehicle completely off. The vehicle engine should not be running, and the vehicle should not be in accessory mode. Many newer vehicles will keep the radio on, even when the car is turned off, until a door is opened.
2. Open the driver's door and lock the door.
Note: If your vehicle is equipped with an Intelligent Access System (<https://www.ford.com/support/how-tos/keys-and-locks/replace-and-reprogram-keys/how-do-i-use-intelligent-access-key>) with a push-button start, exit the vehicle with your keys before locking the door.
3. Close the driver's door.
4. Wait two minutes and ensure the radio display turns off completely.
5. Restart the vehicle.

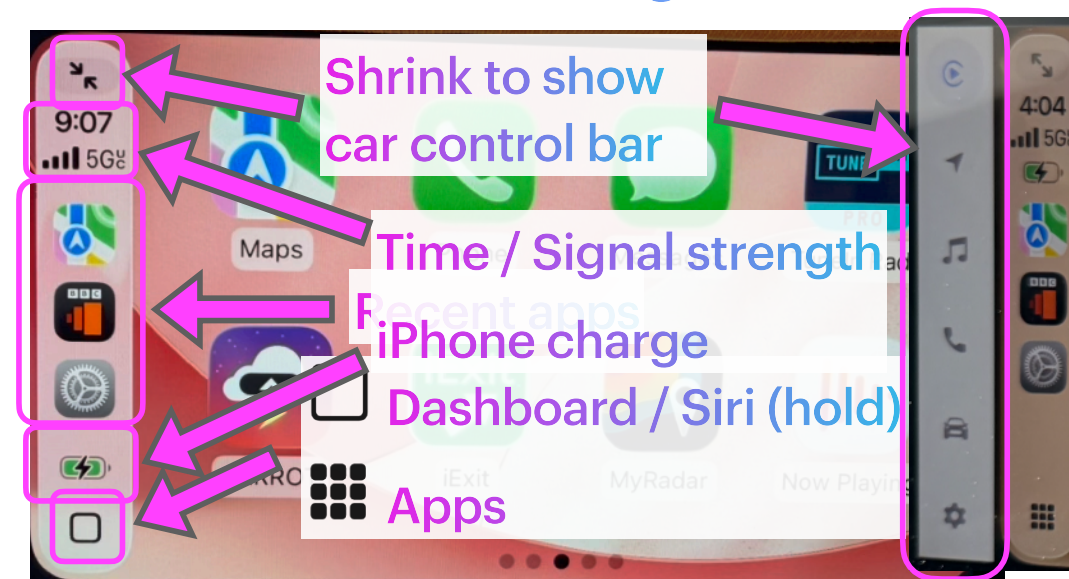
Miscellaneous

[CarPlay - Wikipedia](#)

[Does Apple CarPlay Use Bluetooth Or Wi-Fi To
Connect? — BGR](#)

Not Used

How – Using



Car control bar - to open screens provided by manufacturer

Can use vehicle's built-in controls to control CarPlay

<https://support.apple.com/guide/iphone/use-your-vehicles-built-in-controls-iph5f6b2beb5/ios>