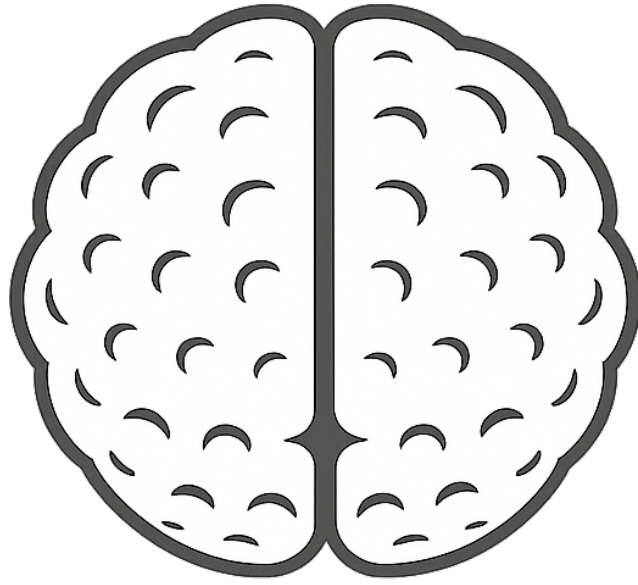




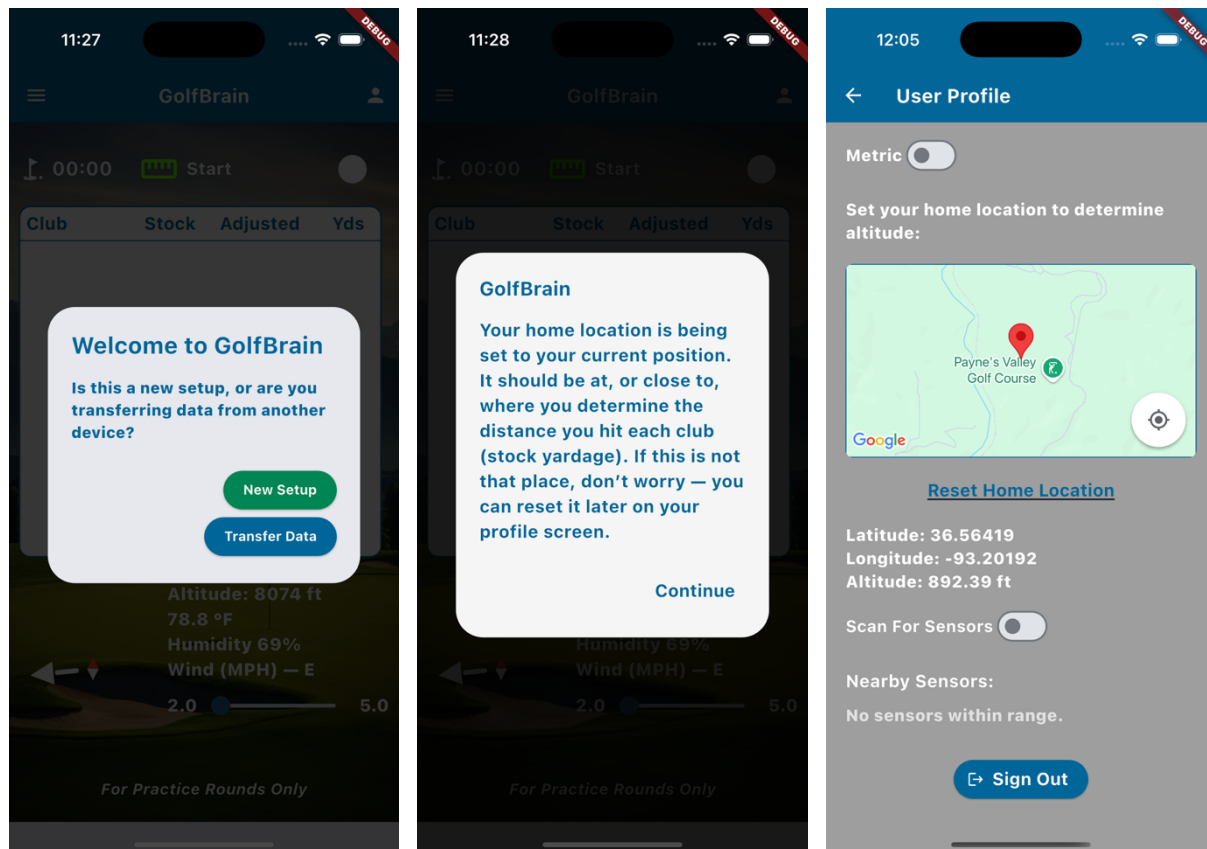
GolfBrain

GolfBrain will help you improve your decision making on the course. By combining physics and environmental/weather data it can do the calculations you can only guess at on the course. GolfBrain also supports a companion Apple Watch app that allows you to get the same information the phone app displays on your wrist.

I wrote this app for the casual golfer to help them lower their scores. The app costs about the same as a snack at the turn. Yes, there are fancier apps that cost more than ten times as much, but GolfBrain combined with a rangefinder or screen on your golf cart can equip you to play better golf with less guessing.

I hope you enjoy using the app and keep it in the short grass.

After seeing the GolfBrain splash screen and logging in this will be the first screen you see. Most will select New User, but if you get a new device and need to load your saved data there is an option transfer your data. You **must** login using the same email that you used on your old device. To ensure your data is saved from your old device you must logout from the User Profile Screen. By default, the app will set your home location to your current location. There is an option on the User Profile Screen to reset this as needed. Your home location should be where you determine your Stock Yardage (carry distance in the air) for each golf club. Note: Your screen will not say Debug in the upper right corner.

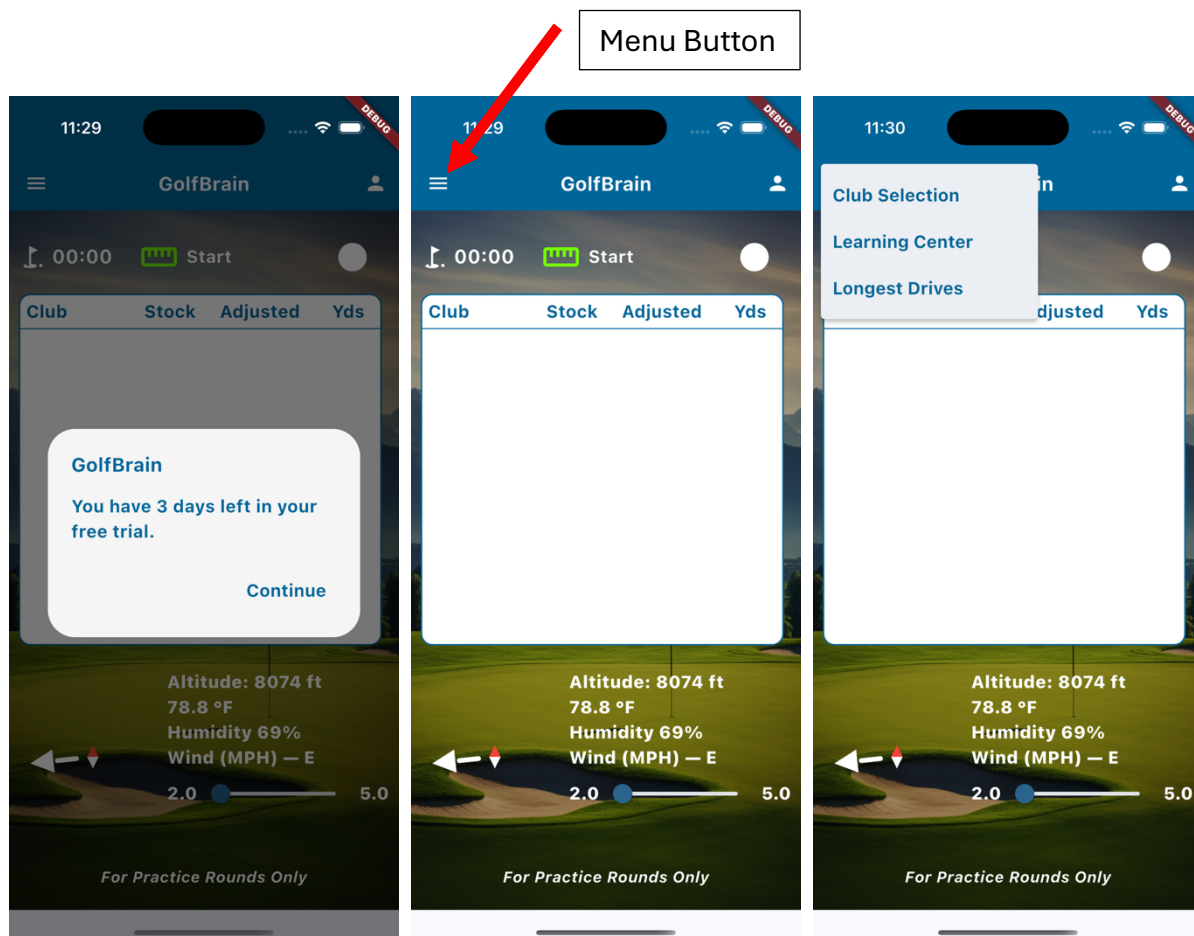


The User Profile screen will show you a map of your home location. You can pinch or spread to resize as needed. It shows you your altitude and location. This is the baseline it will use to determine how far each club will hit at different altitudes.

Scan for sensors allows for the app to use a Bluetooth IoT (Internet of Things) sensor to detect temperature and humidity where you are at. The only sensor that is supported in this first release is a SensorPush HT.w Sensor. You don't need to have this, but if your inner geek likes this sort of thing it can pick up your local readings. It's about the size of key chain fob and can hang on your golf bag. You can buy them on Amazon. Unless you are looking

for pro level precision skip this option. The sensor is several times more expensive than this app.

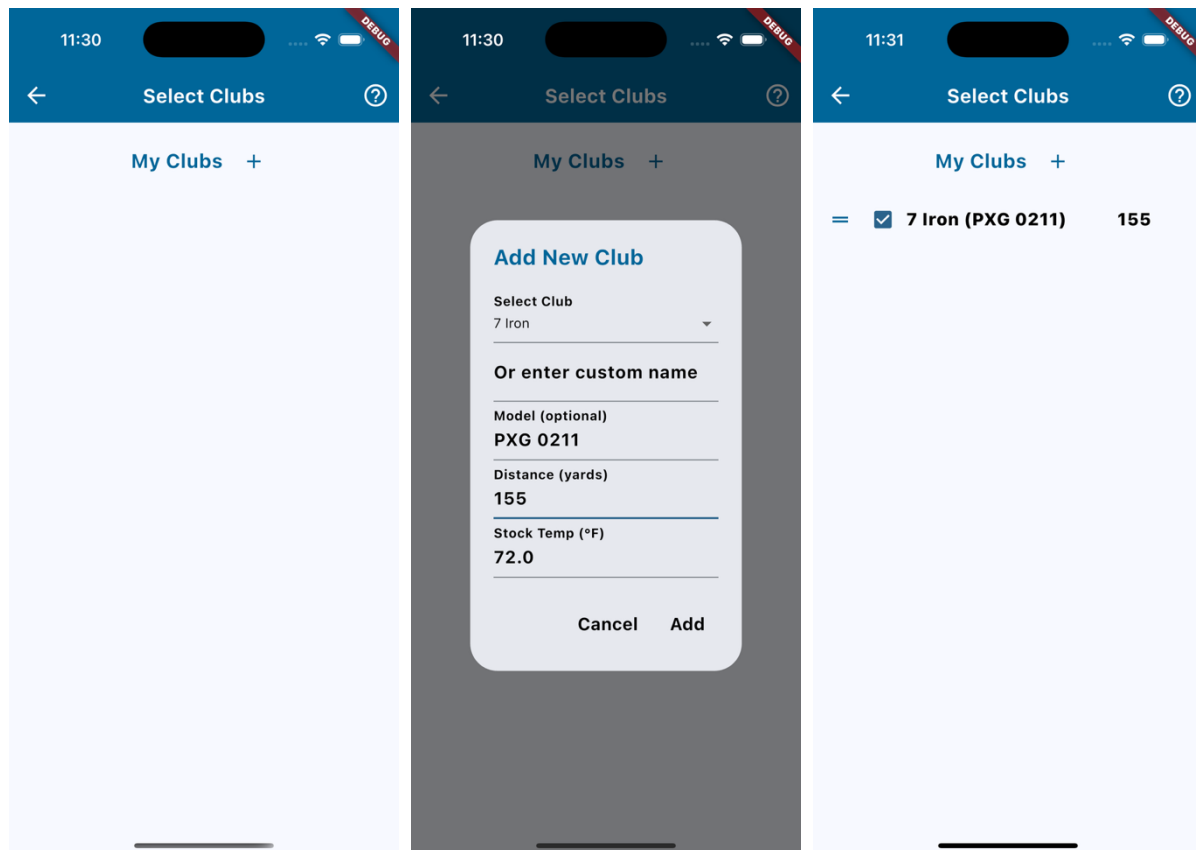
Sign Out – you don't ever need to sign out except in a limited number of circumstances. The most common will be if you are going to switch to a new device. Signing out will save your information (clubs, distances, etc) so it can be loaded into the app on a new device. If you decide you don't like your old email address and want to use a different one – sign out and sign back in. The app supports both Google and Apple sign in.



Initially you will start off on the free 3-day trial. Each time you open the app during the trial period it will tell you how many days you have left. When it expires you will have an opportunity to purchase an annual subscription.

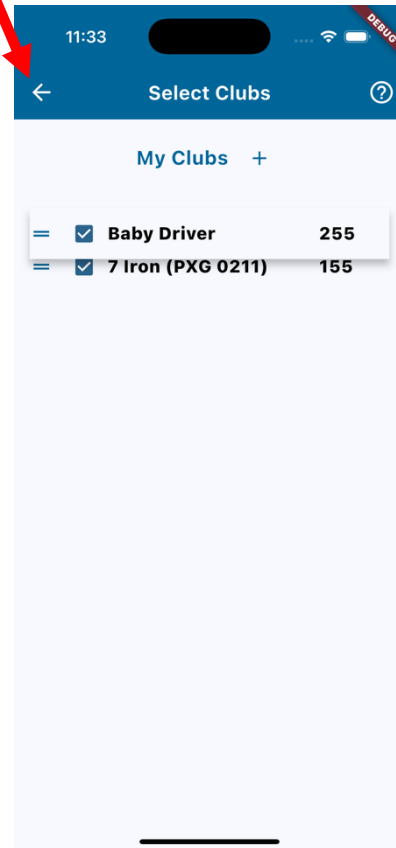
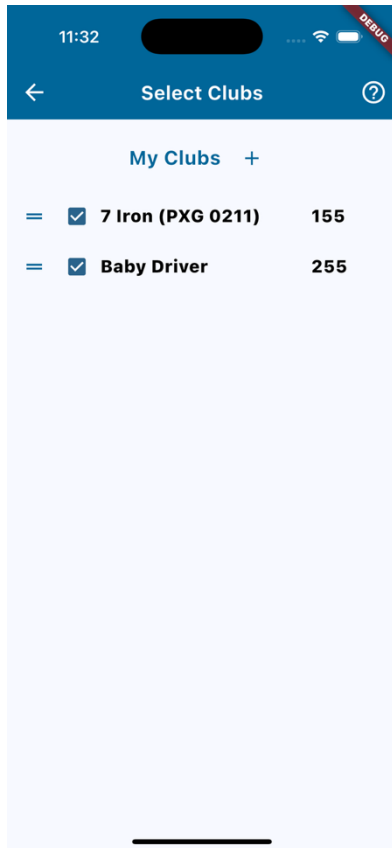
The main screen is what you will use while playing. As a new user the first thing you need to do is set your stock yardages for each club in your bag. Press the Menu button to get the options menu. Pick Club Selection.

This will take you to the Select Clubs screen. Press the + to add a club. You can select from the drop down list a standard club name or you can enter a custom name. You can optionally add a Model. Maybe you are trying a new set so you can have two 7 irons with different Model descriptions. Enter the carry distance you hit the ball with that club. Carry distance is the distance it goes before it hits the ground. Do not add in rollout. Finally, enter the air temperature where you are gathering your stock distances. It defaults to 72 F. Why do I need this? The app will calculate the impact of the temperature differential from when you collected your stock yardages and where you are currently playing. If it is a cold day the ball will not go as far. If it is warmer, then it will go a bit further.



Take a moment to make fun of how far I hit my 7-iron. Finished? Ok, let's move on. Add each of your clubs. Let's say you have different wedges for different conditions. Enter them all, but only the clubs that have the check mark to the left of the club's name will display on the main screen. If you are not currently using a club in your bag just uncheck the box and it won't show. You can also use the custom name option to do things like $\frac{3}{4}$ Wedge or $\frac{1}{2}$ Wedge if you track those yardages.

Return to Main Screen



In the above example I added a custom name of Baby Driver. You can use the handle icon to the left of the check box to drag the club up/down the list to change the order they are displayed in (middle image).

Let's examine the main screen. There is a lot going on here.



When using this screen aim the top of your phone in the direction you want to hit your shot. When you aim it in different directions you will notice the values change and the arrows for the wind direction change. The app will find the nearest weather reporting station to get the wind and temperature. It updates about every 15 minutes because that is how often the weather services update their data. It is getting the best estimated data available for your location, but the further you are from the station the more it can vary. This can be particularly true if you are up in the mountains or directly on the coastline where the weather and wind can differ greatly from what would be found just a few miles inland. That's why there is a Use Weather button. On this screen shot it's a round circle (the sun), but it will appear as an icon that reflects your location's weather. It can show clouds or rain or even snow. No matter what it is showing it is still the button that allows you to factor in weather conditions or you can click it to factor them out and only use altitude.

The larger white arrow is the wind direction relative to where you have the top of the phone aimed. Let's say you are aiming it at the flag in the screen shot above. In this scenario the wind is left to right and hurting (reducing shot distance) just a bit.

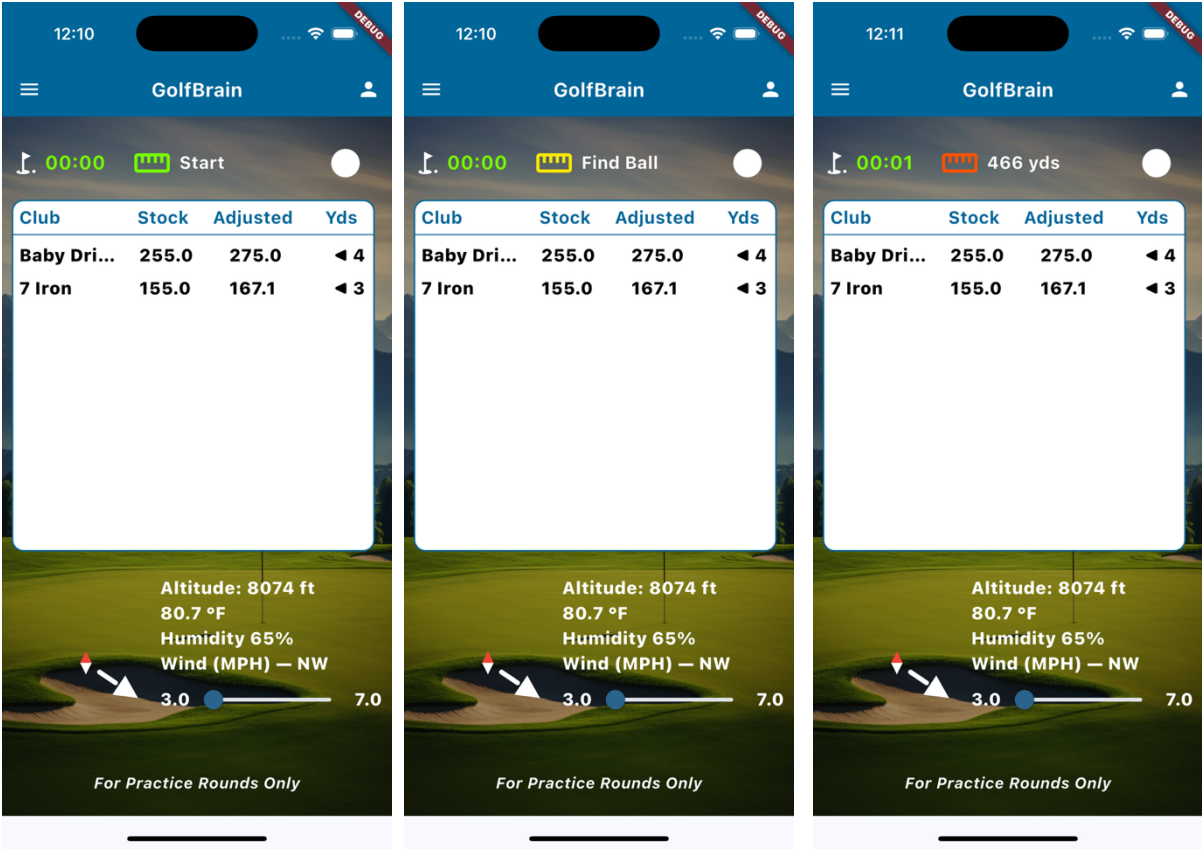
The Wind Slider Strength gives you the ability to adjust for gusty winds if desired. The range comes from the weather service. Winds are from the NW at 3 mph gusting to 7 mph.

Lateral wind impact assumes a perfectly straight hit. None of us hit it perfectly straight. If you hit a draw and it says the wind will push it left 3 yards, then add that on to your normal draw. Same for a fade.

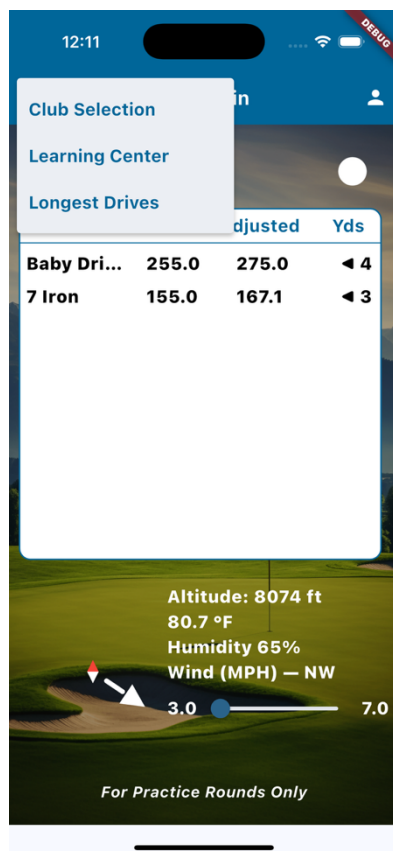
If you turn off the Weather Button (you can know it is off if the Yds column are all zeros) then only the altitude is used for the Adjusted distance. This is quite accurate because it is getting the altitude from your device (phone or watch).

Also included on this screen is a round timer which will turn green once you start it, and a shot measurement tool. Those are shown below. If the round timer turns red you are playing too slowly based on the PGA's recommended averages. Local rules can vary.

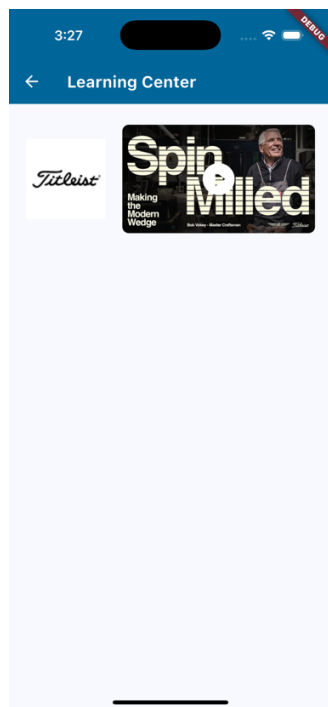
Click the round timer to start it. It will turn green and increment in minutes. To use the distance Measure click the ruler. It will switch from green to yellow and say Find Ball. Once you Find the ball click it again and it will show the distance. This was using simulated data and the distance of 466 yards might be exaggerated just a little tiny bit.



Just click round timer to stop it and one more time to reset it. When the Measure ruler is red and shows the yardage click it once again to start the next measurement. Shot distances are tracked and saved. Go to the menu icon and select Longest Drives (shown below).



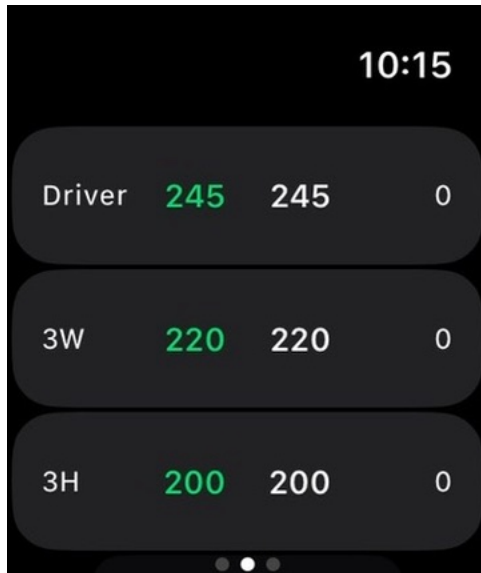
The last thing to discuss is the Learning Center. As the app grows the intention is to provide showcased content from different providers that will help you learn about the game, find out what's new in equipment, and learn new skills.



Once the video starts you can click the upper left corner area to return to GolfBrain.

Apple Watch Support

GolfBrain can be used on your Apple Watch. This means your phone can stay in your cart and you can still get the same data on your wrist. The data synchronizes between the phone and watch in near real time. The very first sync on a new setup can take a little



The screenshot shows the GolfBrain app on an Apple Watch. At the top, the time is 10:15. Below it is a table with three rows of golf club data. Each row has four columns: the club name, the stock yardage in green, the adjusted yardage, and the lateral distance. The first row is for the Driver, with a stock yardage of 245. The second row is for the 3W, with a stock yardage of 220. The third row is for the 3H, with a stock yardage of 200. The lateral distance for all clubs is 0.

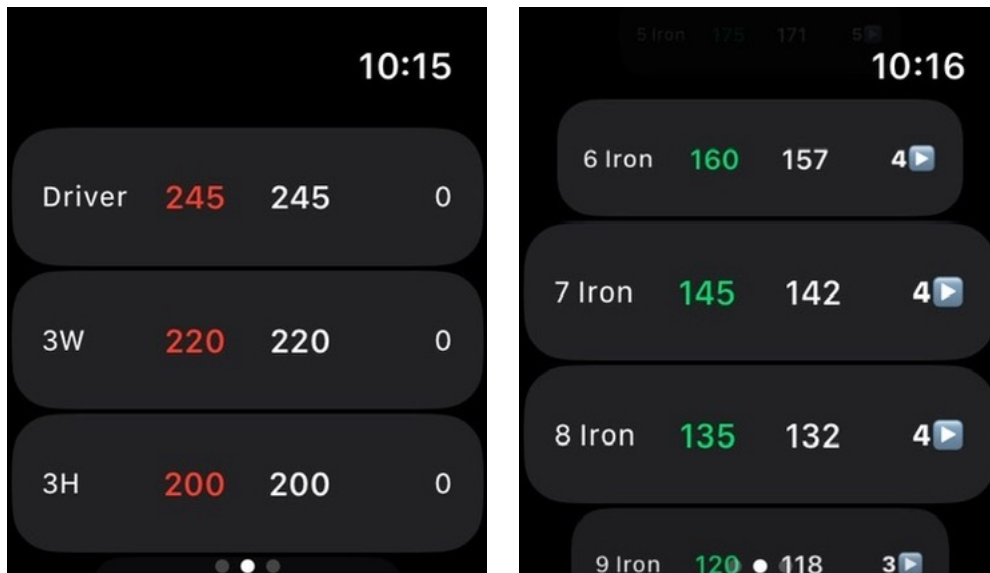
Driver	245	245	0
3W	220	220	0
3H	200	200	0

longer. Make sure you are within Bluetooth range for the phone to sync to the watch. On the golf course the range should be 50-75 yards. Once the data is loaded on the watch, the watch will function at any distance from the phone, but to get fresh weather updates the watch needs to get near the phone about every 15 minutes.

Like the phone, you must orient the top of the watch to aim at your target. It's that simple. The main watch screen is the club distance table. The number in green below is your stock yardage. The number next to it is the Adjusted Yardage. The watchOS simulator

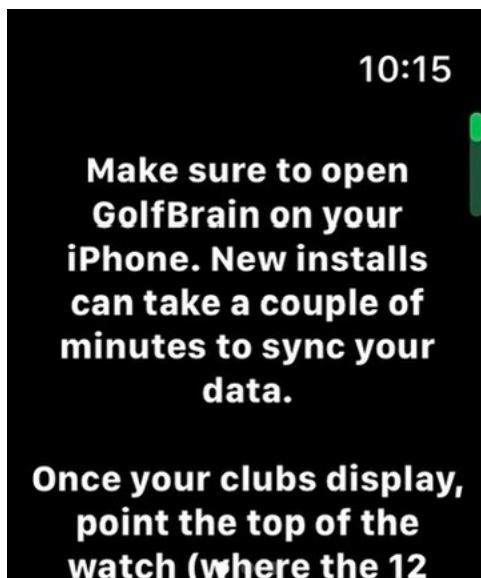
does not support altitude (since it's not actually using the watch). The screen shots in these examples are from my actual watch so they are the same altitude as my stock yardage. That's why they don't show a difference. The rightmost column is the lateral distance that only changes if you have Use Weather (the weather icon) on the iPhone app clicked on.

The watch interface has a feature that will allow you to lock your settings once you've got it aimed toward the target. Otherwise, as you move your arm the values are changing. It is using the built in GPS and altimeter inside the watch and not the one on your phone. To lock the position simply tap the screen. The numbers will turn from green to red to let you know it is locked. To unlock just tap the screen again.



The screenshot on the right above shows the display when the Use Weather option is enabled. That must be done on the iPhone. With the limited display space on the watch, it focuses on presenting the most critical information.

There are two other screens supported on the watch. If you use your finger and swipe right, it will take you a help screen that tells you what I just said above. To get back to the club distance screen swipe left or press the OK button on the bottom of the help screen.



If you swipe left from the main screen, you will see the Weather Info screen on the watch face. The screenshot below shows this. The information here is the same that is on the main screen of the iPhone. The wind direction arrow (green arrow) shows whether the wind is helping or hurting and the direction (relative to where the top of the watch is aimed). The

circle below the green arrow is the compass with the red line pointing North. On the iPhone those are part of the same widget on the display, but due to how much smaller it must be on the watch it was split into two widgets for visibility. You can adjust the wind speed just like on the iPhone if you are experiencing varying gusty conditions.



On Your iPhone

To make GolfBrain work on your watch, you will need to enable it in the MyWatch settings on your phone. To do this tap the MyWatch icon on your iPhone. This gets installed when you setup your Apple Watch. Scroll down the General screen until you get to the section that says **Installed on Apple Watch**. In that section (alphabetical listing) you will find



GolfBrain. Click that and make sure **Show On Apple Watch** is turned on. GolfBrain also supports embedding a GolfBrain icon link on your watch face. This allows you to jump straight to GolfBrain from your watch face. *Note: the ability to link the GolfBrain icon on the watch face only works on the newer style watch faces available. There may be a few older watch faces that it will not work with.*

You do not need an Apple Watch to use GolfBrain, but it is very handy feature if you happen to have one.