Golden Tee
Fundamental Principles of Alignment

Introduction

The biggest difference between Golden Tee and real golf is something very basic - **Alignment.**

The game gives us superpowers like 400 yard drives and the ability sink almost any putt, yet we can't simply aim 6 degrees off-center to a desired target.

Instead, you must click left or right to rotate your golfer to a fixed spot. Because of the large yardage gaps between rotations – you will play the majority of your shots out of alignment.

To correct this – your must adjust your aim. <u>Your initial line must be played on an angle.</u>

However, most amateurs, even advanced players – have a lot of trouble consistently choosing the correct angle. But why?

The problem is rooted in **Spatial Relations**. Basically - identifying an object in space (the trackball) in relation to some reference object (your target on the screen). In simpler terms – your brain is playing tricks on you!

I believe this is the number one reason good players don't get better. They don't understand errant shots, incorrectly diagnose mis-hits, and blame the game for inconsistency.

This guide explains some of the common GT calibration errors made, and offers tips for fixing them based on geometric and mathematical principles.

Note: Alignment refers to straight shots (180, thumb, slap, push, etc) only.

YES NO YES NO YES

Next time you're at the driving range – imagine rotating instead of aiming.

Issue #1: The course map is not to scale.

The 2 dimensional course map is the same size no matter how long the hole is (a 564 yard hole is crammed into the same space as a 110 yard hole).

The 3D course you see on the screen is dynamic. A 3D tree will look much bigger on the screen from 50 yards vs. 250.

This is significant for two reasons:

1. Objects on the 2D map are ALWAYS smaller than they are in 3D. If you use the course map to align non-straight shots, you will ALWAYS aim wrong (you may be doing fine using the map, but you're compensating).

2. As you move through the course, the scale of the 2D map changes from hole to hole….. Par 4, par 3, par 5, par 4, etc. This going back and forth is extremely confusing for the brain.

    Let's say you thumbed a 160 yard 5-iron on a par 3, using just the map, receiving great shot points. The "feel" of that good shot will be fresh in your mind. If your next hole is a par 5, that same shot from an identical distance will react much differently.

110 yard hole   564 yard hole

These course maps are obviously not to scale (the green on the left is 4x bigger). If you pay too much attention to the maps, playing these two holes back to back will mess with your head.

Now for some examples….

Alpine #8

With this setup, let's assume you want to play a thumb shot out to the right – letting the wind bring it back before it can hit the mountain.
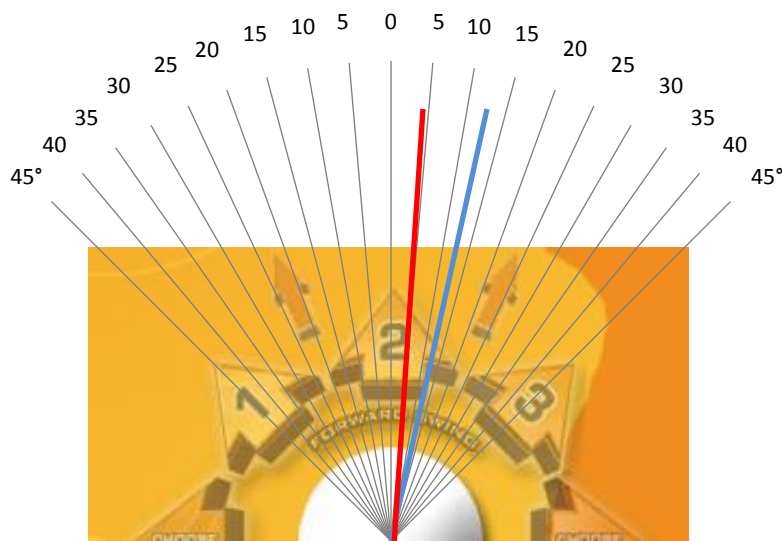
Using the 2D map:
You'll probably choose about a **5 degree** approach angle. Because the map is not to scale, the **12 degree** approach looks like it's aimed too far right of your target (in the snow).

Using the 3D course:
When you look at the screen – it's obvious that **5 degrees** is not enough. The wind would carry your ball too far, potentially into the hazard.

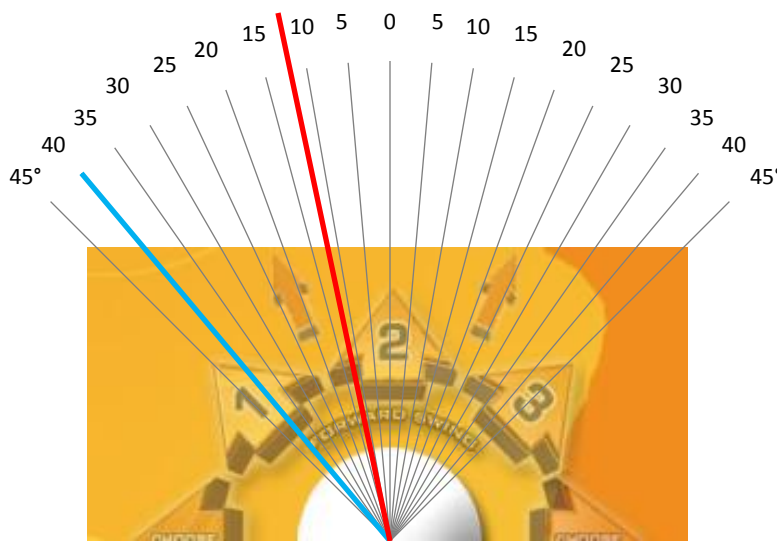You see that you need to aim at least **12 degrees** right of the pin.

Timber 16

Here, let's say you want flick a shot out to the left of the green, over the water.

Using the 2D map: →
Taking your ball **12 degrees** left of the pin looks correct.

The **40 degree** angle looks ridiculous, it's completely off the map.

Using the 3D course:
A **12 degree** shot will definitely end up right of the pin, potentially in the water. You really do need to take this ball almost **40 degrees** left. Or? Rotate your golfer……

HOLE / 16
Par 3
114 yds

GREEN SLOPE
UP 7° RT 1°

129

GOLDEN TEES
PRESS START

Tees Left: 82

WIND
9 MPH

SET

125 YDS

8 IRON
114 yds to pin

PARANORMAL -14
Hole 16 Par 3 Stroke 1

Issue #2. Rotating your golfer can be confusing and misleading.

Rotating your golfer, especially if you can't decide, can really mess up your alignment. It forces your brain to analyze two sets of data that can contradict each other. The impact of a rotation also varies significantly based on the length of the shot.

Example:
Look at the top picture (original alignment). Let's say your gut feeling is to aim **20 degrees left** - or just left of the two pine trees.

In this situation – you might consider rotating your golfer because of the severe crosswind.

Look down to the bottom picture (one rotation left). You're now set up well left of the trees – denoted by ⚠️.

A good reality check is to look BACK at your original alignment – and double check that marker⚠️ . Now you see that it's well to the left of our original target (the pine trees) – about 27 degrees left. Would you really hit a **27 degree** shot to the left?

Most likely your first instinct was correct. So go ahead and rotate once left, but make sure to aim back towards your initial target. In this case – you are now hitting back to the right at a **10 degree angle.**

Original Alignment

Rotated once Left

Issue #3: Alignment errors are compounded on long shots.

You know using the course map for alignment leads to "soft" angles (under compensating).

That doesn't mean you can't OVER compensate with too "hard" of an angle.

This happens a lot on longer approach shots where alignment errors are magnified. To understand what causes angle differential – examine the trackball to the right.

First, notice how similar the 5° and 10° angles appear to the naked eye. Look at the letters in the word "BACK SWING" and you'll notice our lines extend on either side of the "W" - about half width of a pinky finger.

This small difference may not look (or feel) like much. But lazy alignment will haunt you on long approach shots and reduce your Eagle rate.

Seemingly small errors in alignment can lead to incorrect approach angles, especially on long shots.

Let's see the impact a 5° error has on trajectory…..

Alignment errors are compounded on long shots (cont.).

The best way to illustrate angle differential is by using some basic trigonometry.

The table to the right shows the impact of your angle of approach, based on your distance to the pin. Longer distance to pin = higher impact.

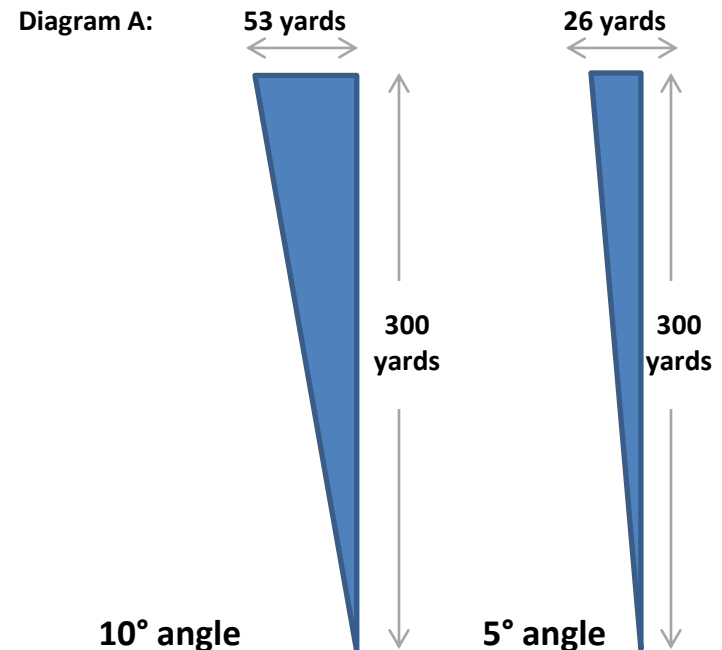>A 300 yard shot hit 10 degrees offset will land roughly 53 yards left or right of center.

>A 300 yard shot hit 5 degrees offset will land roughly 26 yards left or right of center.

This translates to a 27 yard (or 80 foot) mistake on approach, meaning missed greens or really long putts.

Remember how insignificant 5 degrees looked on the trackball?   Compare that image to the diagram on the right, and you'll really see how much careful alignment matters.

Table A:

Distance to pin(yards)	100	200	300
Impact of 10° offset	18	35	**53**
Impact of 5° offset	9	17	**26**
Difference	9	18	27
Difference in FEET	27 ft	53 ft	80 ft

Diagram A:

53 yards — 26 yards — 300 yards — 300 yards — 10° angle — 5° angle

Issue #4 - Human vs. Virtual Eyes

Do you see your shot through your own eyes, or thru the eyes of your virtual golfer?

Most players line up over the trackball or just slightly behind it. As the image shows – your eyes take a different path to the target than your virtual golfer.

Fortunately, this example of spatial relations is not that difficult for our brains to compute. That's why you can play fast paced shooter games with your controller at waist level.

The problem occurs when you attempt you use the trackball as a "sight." Players tend to do this when shooting thru small gaps in trees or around tight obstacles. I used to think of a string going from the trackball, straight up to my target on the screen, then attempt to follow that path with my motion.

This actually messes up the path convergence that your brain has been adjusting to the entire round. If you "step behind" your virtual golfer too much – you're likely to choose the wrong line.

Who is taking this shot? You or your golfer?

Issue #5: Pedestal vs. Cabinet

The differences between pedestals & cabinets are significant:

- 42" inch monitor vs. 26." Your 2D course map will look the same - but the 3D environment is much different when viewed in widescreen.

- Trackball is 36 inches from the bottom of the screen on a pedestal, and only 12 inches from the screen on a cabinet.

- You look down on a cabinet – but look the pedestal square in the eye.

Obviously – these variations will alter the way your brain looks at the course. Quite simply, try to stick to one machine when you can, and don't be surprised if it takes you a while to perform up to your standards when switching.

If you go to a new bar and all they have is a cabinet, of course you'll still play! Just make sure you pay extra attention to the principles of alignment and reduce the amount you gamble.

Summary

I've been able to play with some world class GT players, and I'm always most impressed by their feel & touch. They are not thinking about aim & alignment at a granular level during the round.
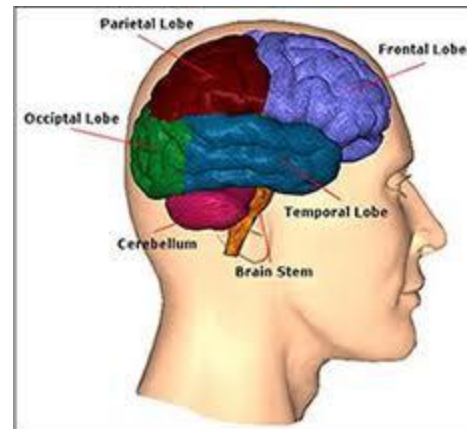
Just like a world class pool player does not need to set up each and every shot. Just like Steve Nash is not thinking about his arc and distance on every free throw. There is something to be said about spatial relations and your brain's ability to process information intuitively.

You probably have your own system that serves you quite well in GT. But chances are – it's a system of overlapping compensations.

I don't recommend implementing all these things at once. After all, it's impossible to know exactly what caused a bad shot. You could choose the wrong line, pick the wrong target, or just fail to execute the shot.

What I would recommend is using them for diagnostic and correction purposes. Examine your ball flight, and try to pick up patterns in your misses. You might find that a small adjustment to your alignment improves your performance, or gets you right back on track.

Questions/Comments: contact
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Or NIGHTRAIN on the forum.

5 basic principles of alignment:

1. Realize the limitations of the course map. Always aim towards a spot within the 3D environment.

2. Rotate only when it clearly benefits you. If you do rotate, cross check your new alignment with your original setup.

3. Pay extra attention to long approach shots, where small errors will be magnified.

4. Stay in tune with your brain's normal calculations. If you have a "special" system for very precise shots – it's probably having the opposite effect.

5. Stick to one type of machine or another when you can.

Appendix: GT protractor