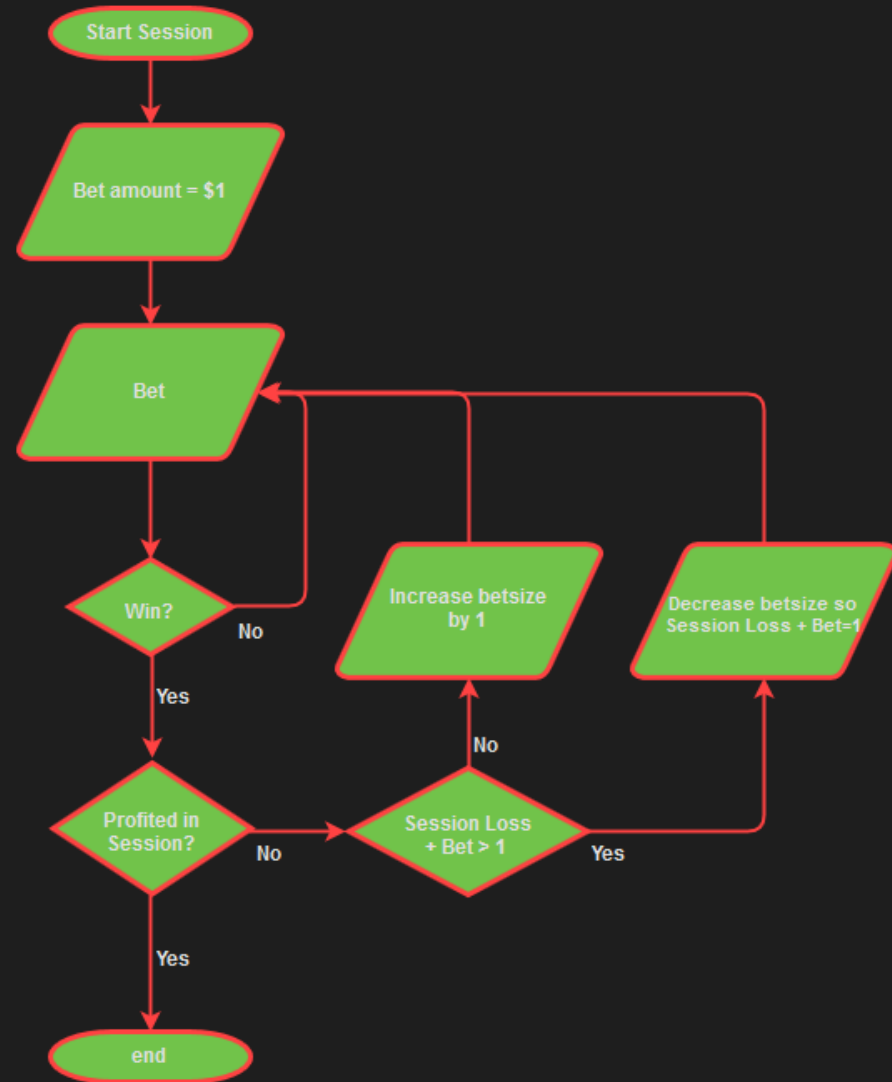


## Oscar's Grind System

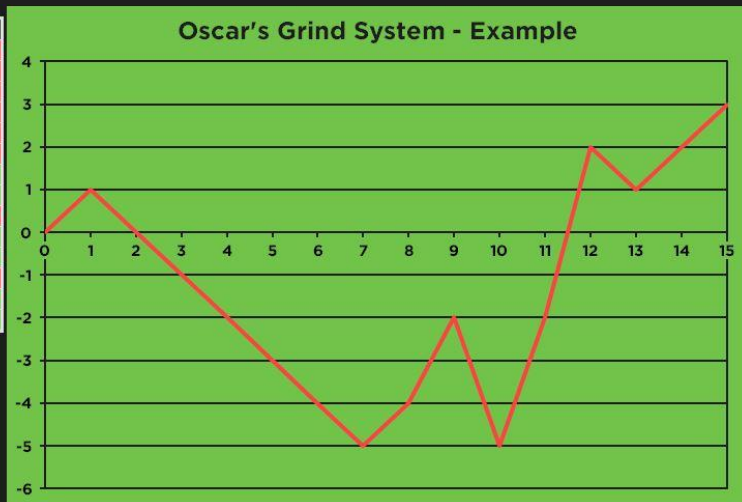
Oscar's Grind is a progressive betting system first printed in 1965<sup>1</sup>, but it's as popular nowadays as it ever was. The base idea of the system is to compensate a longer losing streak with a shorter winning streak. It's designed for even bets (red/black or odd/even in Roulette, no doubling or surrendering Blackjack tables, etc.), but it can be applied to non-even bets with certain modifications. But before analysing the system further, let's see how it works.

There are only a few simple steps you have to follow. First off, if your profit exceeds 0 for the current session, your session is over, and you can start a new one. The session starts with you betting a single unit. If you lose, you bet the same amount again and again until you win. If you win, you increase the betsize by one unit. There is one exception: if you would get more than 1 unit of profit by winning, you should alter your betsize so that you win exactly one unit. If you lose again, you keep this betsize until you win. This may sound complicated at first, but looking at an example will surely make it clear.



<sup>1</sup> Malmuth, Mason; Loomis, Lynne. Fundamentals of craps. 2004

Betsize	Result
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	WIN
2	WIN
3	LOSS
3	WIN
4	WIN
1	LOSS
1	WIN
1	WIN

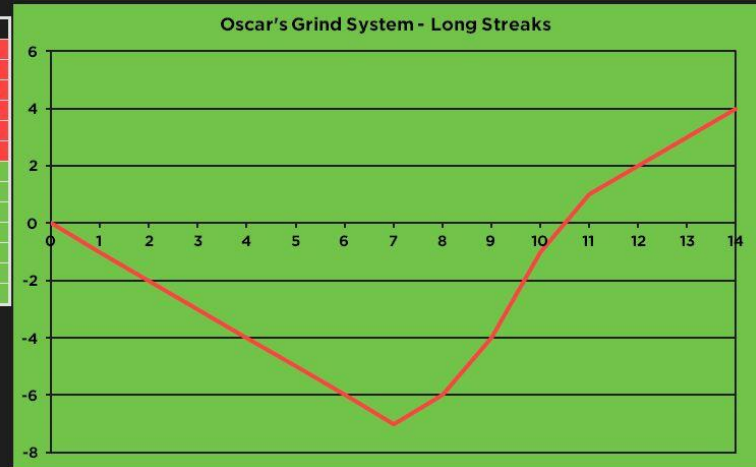


So we start with winning the first bet, and since that makes our profit positive, we instantly start a new session. We lost our second bet, so in the third bet we bet the same amount as previously (the same goes for the 4<sup>th</sup>-6<sup>th</sup> bets as well). Finally, we start winning. We immediately increase our betsize for the next bet by 1. At the 9<sup>th</sup> bet our betsize is 3 units now, and we lose the bet. No harm, we keep the betsize at 3 and bet again. We win this one, and increase the betsize to 4, which puts us in the positive profit range. We're at +1 profit, so we can start a new session (12<sup>th</sup> bet). We lose one, but win the next one: we should increase our betsize to 2. But if we won that bet, our profit would be 2, so we need to bet only 1 unit to achieve profit, so our new betsize is 1 unit again.

Ok, so hopefully by now everything is clear and we can start analysing this System. What's the thought process

behind this betting strategy? Well, let's look at another example, now paired with a graph.

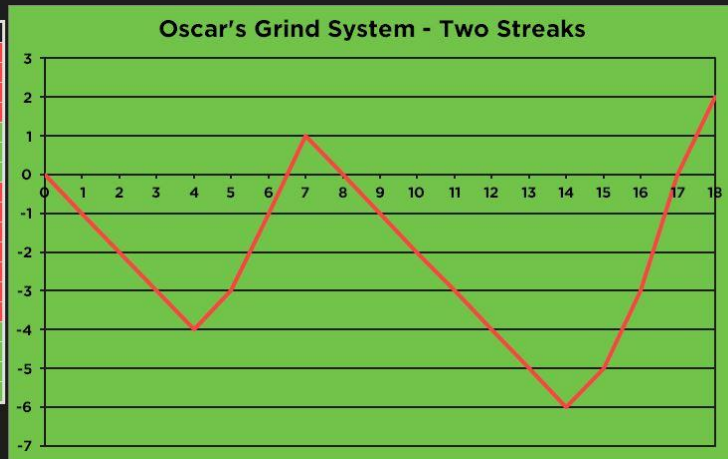
Betsize	Result
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	WIN
2	WIN
3	WIN
2	WIN
1	WIN
1	WIN
1	WIN



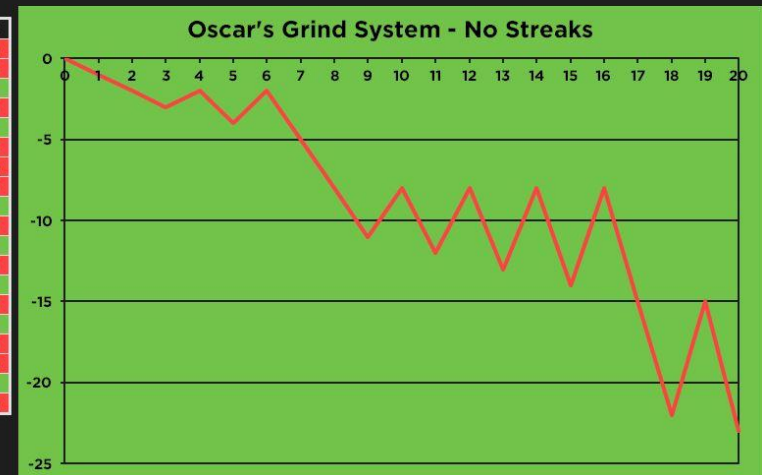
In this example you can see how Oscar's Grind works in a situation where long streaks are included. There is a common misconception among gamblers that winning and losing comes in streaks, and for the balance of the Universe, a long losing streak must be followed by a big winning streak and vice versa. Oscar's Grind tries to exploit it by making you recover from a losing streak with a much shorter winning streak.

As you can see in the example, we can recover from a 7 bet long losing streak in only a 4-bet-long winning streak, meaning that if 'the Universe is balanced' we make a pretty nice profit by increasing our betsize in the winning streak.

Betsize	Result
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	WIN
2	WIN
2	WIN
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	LOSS
1	WIN
2	WIN
3	WIN
2	WIN



Betsize	Result
1	LOSS
1	LOSS
1	WIN
2	LOSS
2	WIN
3	LOSS
3	LOSS
3	WIN
4	LOSS
4	WIN
5	LOSS
5	WIN
6	LOSS
6	WIN
7	LOSS
7	LOSS
7	WIN
8	LOSS



Let's look at another example, here we'll see two shorter streaks, compare the speed of recovery in both cases.

In this example, you can observe a 4 and a 7-long losing streak, both of which we recover from in no more than 3 and 4-bet winning streaks consequently. So the longer the losing streak, the better for us after the assured winning streak. Sounds good, doesn't it?

Actually no, it does not. The Universe is not balanced, at least not like this. Streaks are only fictional, and they definitely don't even out in the short run, not in a couple of spins or hands. It can easily take thousands if not tens of thousands of an event to even out. But streaks happen randomly, and therefore this strategy loses a lot of value.

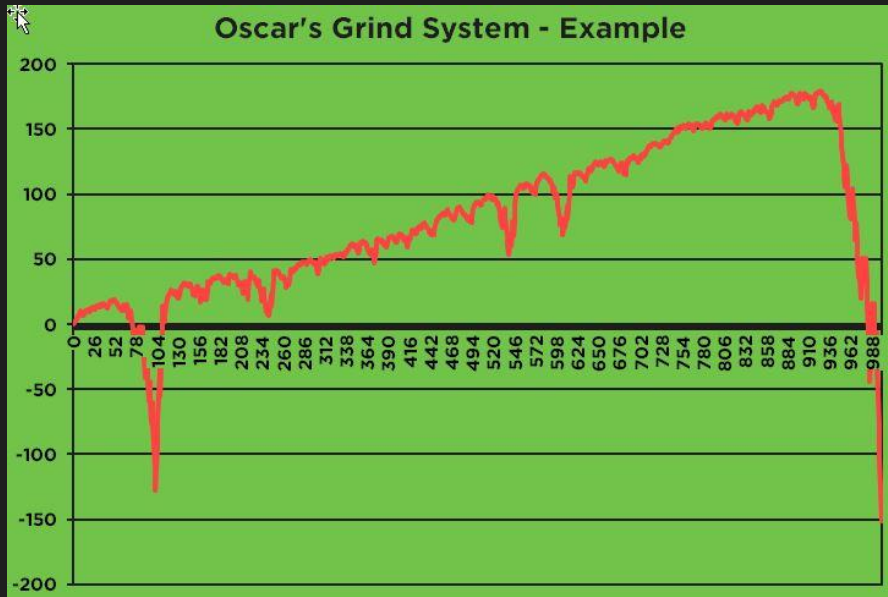
In actuality, results come absolutely randomly, and that hurts Oscar's Grind really badly. Take a look at example 4.

Here you can see how Oscar's Grind performs when the streaks are not happening. Even though we win 7 out of the 20 bets, since they're all over the place, we end up losing 23 units in 20 bets. Even though it would only take 3 bets to recover here, every loss gets us deeper and deeper.

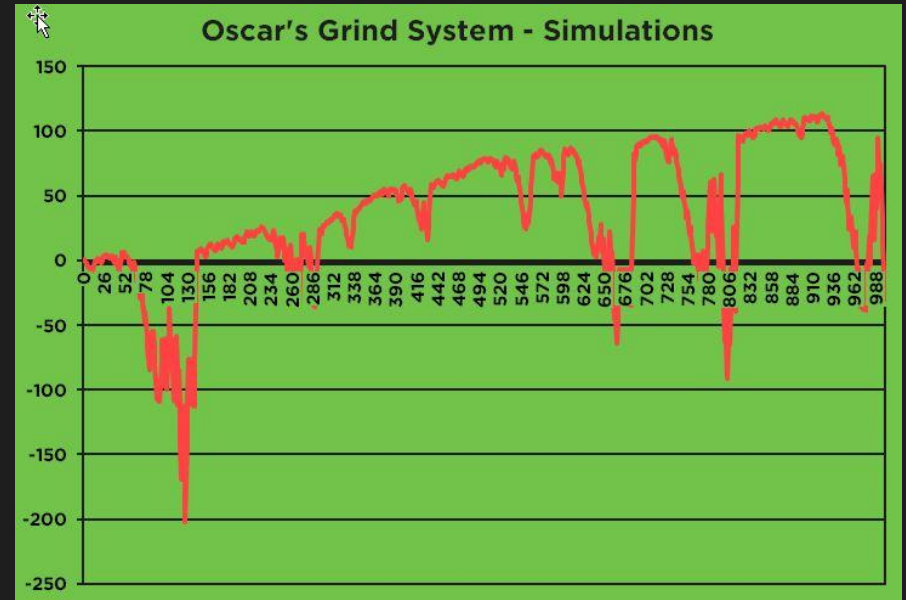
We ran some simulations on how Oscar's works in the long run, and the results are no surprise. Even though, there are occasions, where after 1000 or even 10000 bets you end up winning, the 'unrecoverable' losses are far more common, and even if you end up winning, you will have to recover from huge losses.

The rest of the examples are based on 1,000 and 10,000 spins on a standard European Roulette table (making even bets, of course). In the 1,000 spins the 'peak' was an 8,000 unit loss, while in 10,000 spins there was a point where we lost more than 1.4 million units. Even though you recover from these swings every time, the amount of spins and money necessary for that is probably not given for most.

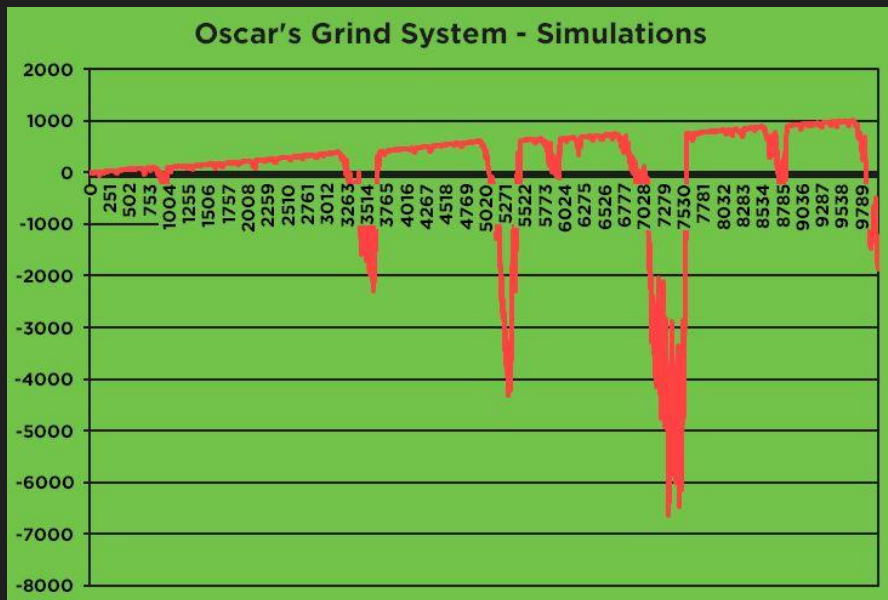
So, do we suggest you try it? It's not a winning betting system, but for one night in the casino it definitely won't hurt, and has a pretty high chance of winning you a couple of bucks at the end of the night.



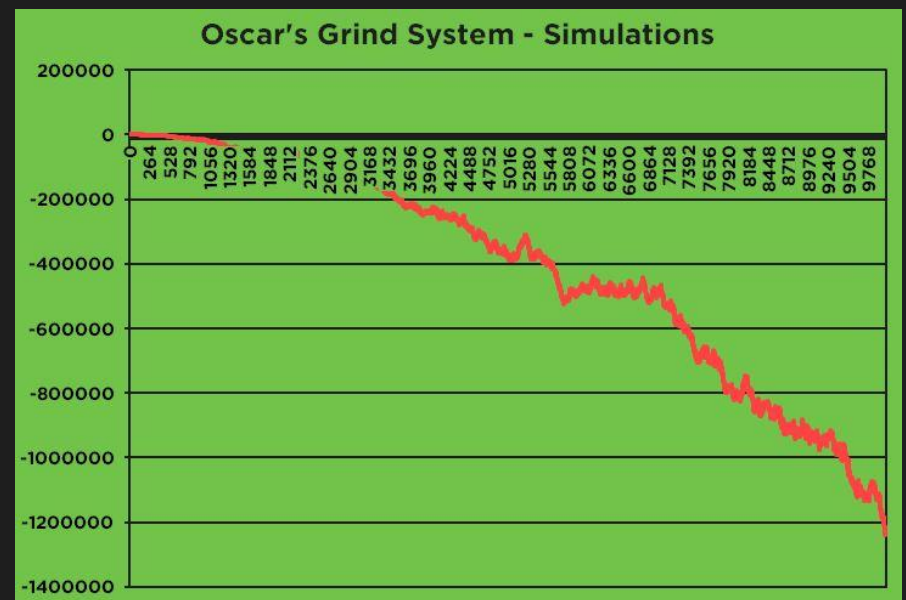
Example 1 - 1,000 bet simulation with house edge



Example 2 - 1,000 bet simulation with house edge



Example 3 - 10,000 bet simulation with house edge



Example 4 - 10,000 bet simulation with house edge