

# Rotation Disc

Sport and games has always been a huge part of civilisation. In competition or fun play, both sport and games pushes the human cultural perception of each other. While the differences can be discussed for eternity, they do have tight connection within the domain of play.

Following the theory of play put forth by Caillios, both sports and games should fulfill all characteristics. One could argue that professional sports that involves money goes against the idea of play being unproductive, but I would argue that the transitions of wealth is beyond the play of the sport, circles more around the metagame, and therefore does not violate the characteristics. As for Caillios' type of play, I would argue that it introduces a strong difference between sports and games. While games are free to explore the four different types, sports are locked to Agōn due to their competitive nature. Sports are meant to show which team is superior in skill and reward it. There are no chance involved in sports, as it would decrease the the reward from skill development and possibly put a team in a better position without requiring higher skill level. Nor is there any mimicry and ilinx as the athletes are representing themselves/their team in the quest for glory and must stay focused.

To make certain that the participants skills are tested equally and make it the competition measurable, every actions must be judged accordingly. Therefore is the rules of a sport of uttermost importance. The rules are the foundation of how the outcome of the sport is determined, and how it should be played. The rules encapsulate the seven elements of games identified by E. M. Avedon, but can definitely be applied to sports(as Avedon does himself). This include the "rules governing action"-elements, that defines which actions the participants can take in order to win, and thereby lays the basis of which skills the participants should develop in order to be superior in the sports.

Understanding rules and how to create proper rules is therefore necessary in order to gain knowledge on how the sports are performed, how the participants are tested and thereby how to design sports and games.

To explore the concept of rules, a sport called 'Rotation Disc' was created. The goal of the sport is to throw the frisbee into a single goal in the middle of the playing field that is rotating around the vertical axis, to score a point. The team with most points after two half is declared the winner. The direction of the rotation changes at the begin of the second half. The playing field consists of three circles(inner, middle, and outer), being respectively four meters, two meters and fourteen meters at the broadest, with the inner containing the goal. A sketch over the playing field can be seen on figure 1.

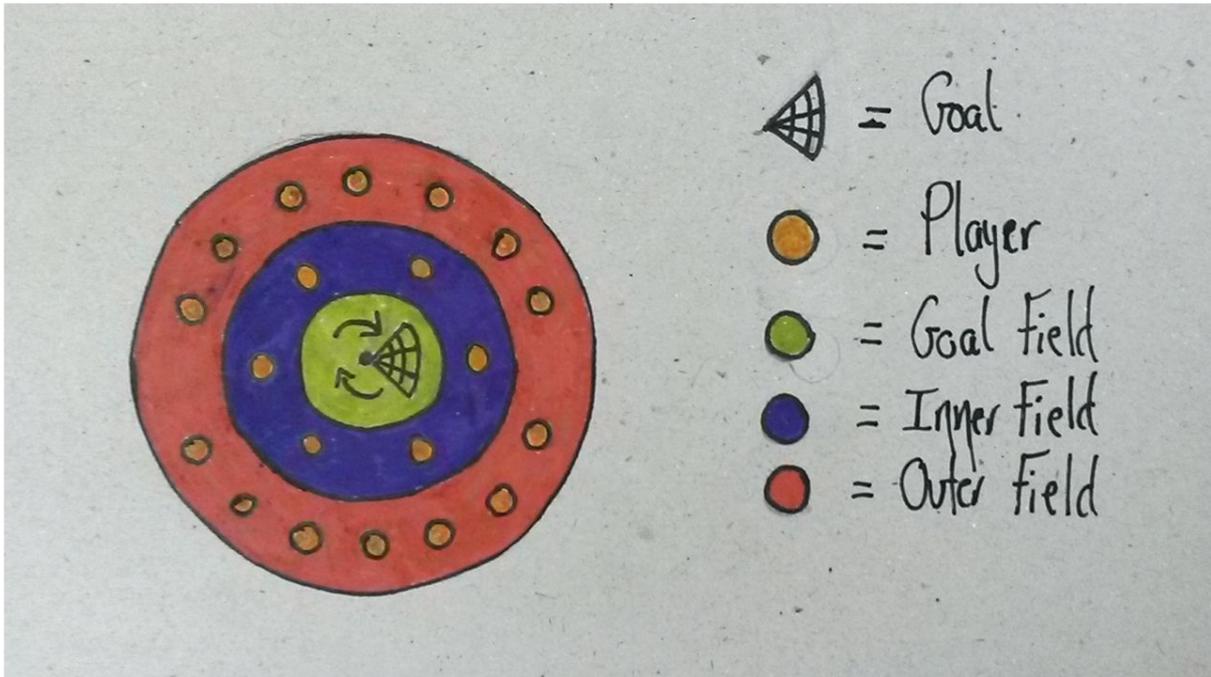


Figure 1: Playing Field

Two teams consisting of ten players are competing against each other. For each team, there is seven players in the outer ring and three players in the middle ring. Players are not allowed to cross out from their zone. The players in the outer ring can throw the frisbee to anyone in the field, but are not allowed to score. The players in the middle ring are only allowed to throw to the players in the outer ring or try to score. There is allowed no contact between the teams and players holding the frisbee are not allowed to move.

If the frisbee is drop, flies out of the field or lands in the inner ring, it is deemed as foul. At foul the game pauses and the frisbee is given over to the other team. The team receiving the frisbee should start opposite of the goal's mouth, and then the game resumes. The same is true, when a team score: The frisbee is transferred to the other team and they set up behind the goal. If the frisbee is caught by a player from the opposing team, the control of the frisbee goes over to that team and the game continues without break.

Upon reflection of the creation process of this sketch, several realizations became apparent. One that surprised myself quite a lot was the amount of rules required to make a competitively viable sport. Usually when designing games, especially video games, there is a much larger focus on defining what you can do, rather than what you cannot do. This is due to the limitation of the virtual world that needs to be programmed to every little detail, while sports exists in predefined world (often our world). It could be argued to be different in relation to e-sport, but as e-sport is based upon games, I would define their worlds as predefined as well. While it all boils down to the search for defining what possible mechanics are possible invoked by agents of the sport/game, the presentation and approach is rather different. In a digital game, the process is usually to design the mechanics to afford the desired type of play and mechanics are created to presented as what you can do. With the design of sport, the goal or purpose of the game(according to Avedon) is presented and then the constraining the actions(rules governing actions) to create the challenge.

To sum up, both sports and games are moving towards the defining the challenge through

structuring relationship between the mechanics and rules, but the approach is different. Games applies more mechanics to challenge the players to achieve the purpose, while sports challenges the players by limiting the allowed 'mechanics' of real life through rules. For this sketch, we started out with the concept of a rotating goal and from there limiting the allowed mechanics. Reason behind this concept will be introduced later.

This way of play design by constraining players through rules showed me some clear advantages in constraining your ideas. By setting a goal for the sport, you create certain boundaries for the design. It reduces possible actions to achieve the goal. E.g. for this game, it makes no sense to throw a ball in the net, when it is frisbee that gives points. This makes the task of cutting down on possibilities rather than picking singular one from an infinite amount, much easier in my opinion. It can afford creative thinking in the way of creating challenges, as the goal becomes more challenging the more rules that is applied. The mechanics are still created, but in a slightly more indirect way as you reduce the possible actions. It can free the design process from trying to design mechanics that make the game playable, as a sport with only a goal is still playable since people have access to all their 'mechanics'. Thereby testing becomes more accessible early on as the concept provides the framework for play, and is easily varied by adding more constraints.

The creation of the goal concept is however not as easy as cutting down on possible actions, as this is the earliest stage of creating constraints. Without any clear concepts in mind, we focused on the difference between sports. We want a sport that would require both speed and precision. To our knowledge, there are only sports that require both high speed and high precision, but several that requires one of these (for speed e.g. racing, for precision bow shooting). Ski-shooting is the only sport we could think of that requires both high speed and high precision, but it is divided into two phase, one fast and one precise. So combining these would require the participants to shoot precise, but fast. The small rotating goal, combined with the no movement, forces the participants to shoot precisely and fast. However, this is still closer to the precision of e.g. basketball rather than the precision of ski-shooting. A possible design for this could be to differentiate the amount of point you get from scoring depending on where you hit, like other high precision sports. Combining this with the fast pace might prove problematic.

The sketch design process was highly affected by the idea of limiting possible actions rather than creating them from scratch. The idea of sport was approach as a game mainly consisting of Agõn, with rules regulating the actions. Furthermore, there is often focus on either speed or precision, or one of these with a small amount of the other. The design of the sketch wanted to move towards a more equal combination without breaking the sport into phases. From this stage of the sketch, the next step is to start testing. It will allow us to see how the rules works in practice and where the holes in the logic are and see if any patterns of actions can be discovered. One that definitely needs testing is the size of the goal, as well as the possibilities to afford more precision. It is close to impossible to cover every possible action that might go against the concept of the sport. The human mind is creative after all.