Prototype Chapter

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1 Prototype Overview

1.1 Challenges and Ideas

It was important to us to have a physical prototype that represents our ideas for the game as good as possible and includes all our core mechanics. The first thing we did was looking for a suitable representation of our pizza-platform that lets the playable characters move in a controlled manner and so we came up with a pizza-board with hexagonal tiles. The benefit of using this honeycomb-like structure is that the characters can move in 6 different directions instead of 4.

Other things we had to think about is how can we map the characters itself, their attacks, their lives, the base toppings and things like air circulation into the physical space? Another question was whether there should be a game master that takes the role of the computer to control the air circulation but we agreed on the fact that a die can do this job.

1.2 Realisation
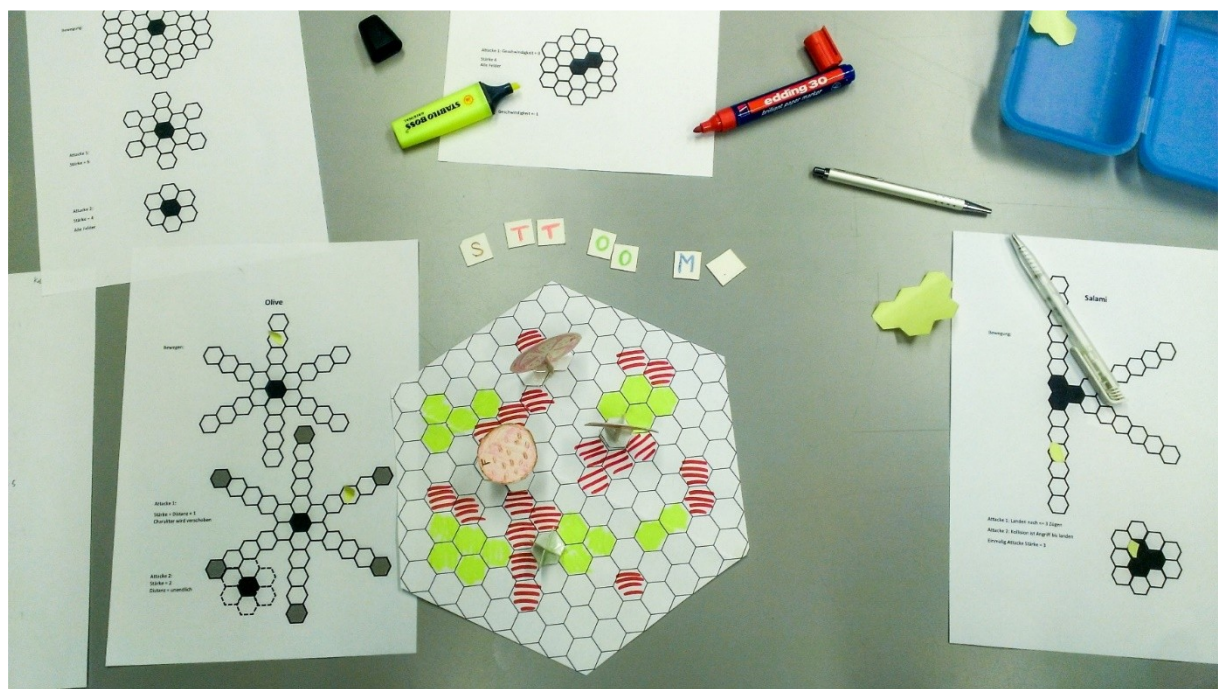
We give a short overview about how we represented each element of the game in our board game.

1.2.1 Pizza

The pizza – our game space – is a hexagonal paper board on which the character can move in 6 different directions.

1.2.2 Characters

Our four main characters, the salami, tomato, olive and mushroom, are cardboard figures that have a certain space they occupy (the salami takes up three tiles whereas the olive needs only one)

1.2.3 Base Toppings

The base toppings tomato sauce and cheese are special fields marked on the pizza. The cheese is yellow and the tomato sauce is red, and the characters behave differently if they land on one of them after a turn.

1.2.4 Lives

The lives left per topping are displayed through small pieces of paper instead of having more than one figurine per topping.

1.2.5 Attacks

As each topping has different attacks that are not easy to remember, we had to write them on a piece of paper for every character. The player can then look the range and effects up.

1.2.6 Air Circulation

The air circulation happens randomly and is controlled by a toss of a die after each round.

2 Gameplay

2.1 Initialisation

Each player can pick a topping to play, but not the same one, they have to be different. There can be up to 4 players but at least two. After they have chosen, their figures are put randomly around the center of the pizza (with a radius of two tiles).

2.2 Goal

The goal of the game is still to push all other players down of the pizza-board, using the attacks and moves given. If a player was pushed down he can take his figure and put it again near the middle of the board for the next round in exchange for a life-token, until no lives are left.

2.3 Rounds

The board game turn-based, which means that each player can take his time and make decisions for his next move before it gets executed. It was important to us that these decisions made secret, so that the other players cannot see what their opponent is up to. To make this work, we used an A4 paper were their attacks and moves are displayed. The player decides hidden what he's going to do and uses a small piece of paper to mark his decision on the paper (so that no cheating is possible). After all players have made their decisions, the second part of the round is executing those chosen moves.

In each round, a player can first move and then attack or choose to wait. If he attacks, he has to wait one round before attacking again (moving is still possible). This mechanic was chosen to simulate the attack cooldown of the final game.
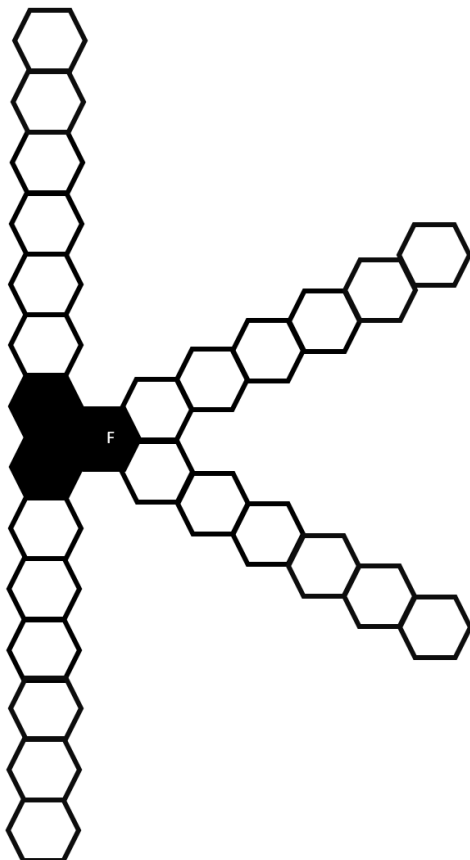
2.4 Moves

2.4.1 Mushroom

The Mushroom can move on any of the following tiles starting from the black one.
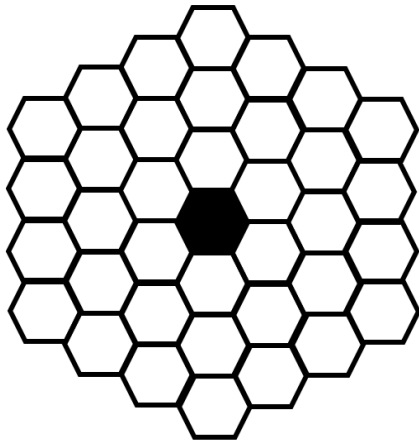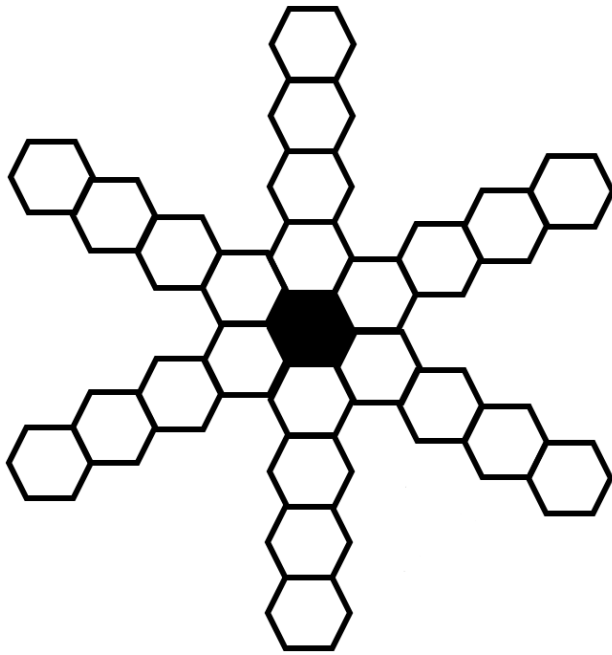
2.4.2 Salami

The Salami can only move if he is flying (see attacks). He can move 6 fields in 4 different directions.
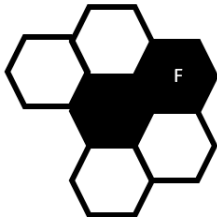
2.4.3 Olive

The olive can move 4 tiles in any direction.

2.4.4 Tomato
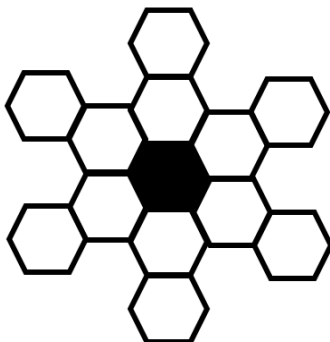
The movement of the tomato is a bit different. It has a set speed and can change this speed by two every round. Additional it can turn by moving the front to a white tile seen below.
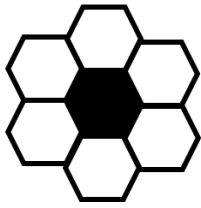

2.5 Attacks

2.5.1 Mushroom

The first attack is of strength 6 shooting 2 tiles into a chosen direction.


The second attack is of strength 4 1 tile all around the mushroom.

2.5.2 Salami

The first attack of the salami is starting to fly. It can fly for up to 3 rounds. When it lands it cannot do anything for one round.

The second attack is to start spinning. When starting it attacks 1 tile around him for strength 3. Spinning makes any collision count as attack of strength 4. The salami does not get pushed back. It stops spinning when it lands. It is immune to tomato sauce.
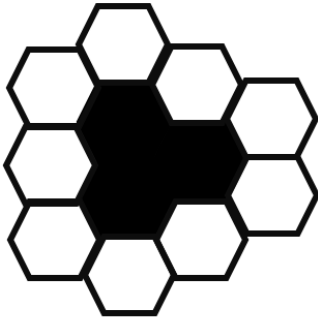
2.5.3 Olive

For the first attack, the olive can jump in any direction up to 5 tiles. The strength of the attack is determined by the distance + 1.
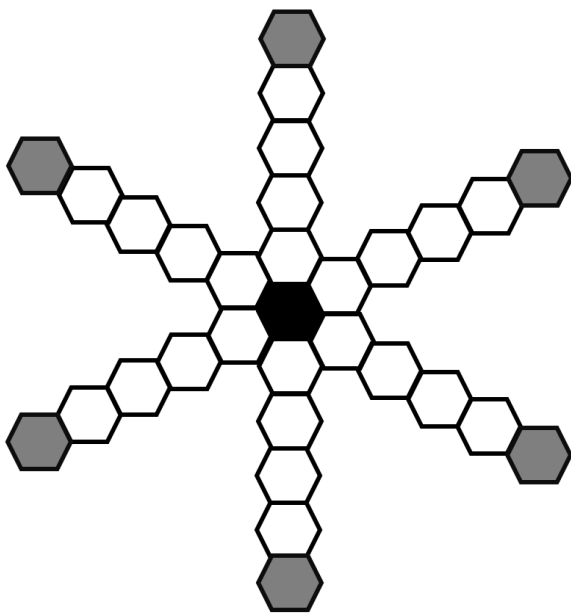
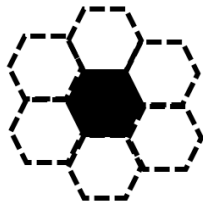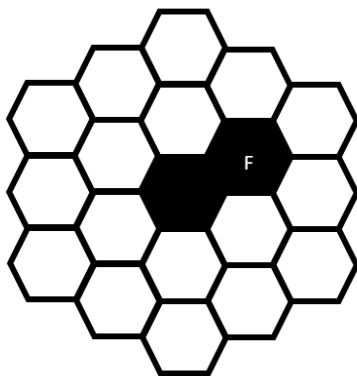When executing the second attack, the olive spits its stone in any direction over the whole field. The strength of this attack is 2.

2.5.4 Tomato

The tomato can change its speed by an additional two as first attack.

For the second attack, it flaps on the floor, setting its speed to 0 and attacking an area around it with strength 4.

2.6 Base Toppings

2.6.1 Cheese

Whenever a topping hits a tile with cheese on it, the movement immediately stops. If it hits cheese and tomato sauce, the cheese is stronger.

2.6.2 Tomato Sauce

If the topping hits the tomato sauce, it will slide over it to the first non-tomato sauce field. After that, the movement continues like it would be on the first tomato sauce tile.

2.7 Air Circulation

After each round, a die is tossed, once for determining whether there will be air circulation (if the 6 shows up) and if yes, a second time to determine the direction where it comes from. It is convenient that our board has six sides and a die too. If the air circulation is active, all characters that are not standing in a cheese tile are moved two tiles in the given direction.

3 Experience and Lessons Learned

The gameplay of the final game will mostly depend upon the action, which we could not translate into a tabletop game very well, and instead of the fast-paced game of skill we're envisioning, the prototype is a slow game of trying to guess the enemy's movement and usually missing most of

your attacks because the other character is nowhere near. Tweaking the parameters (like movement range etc.) did not help much, so we would probably have had to change the mechanics completely, but we could not come up with any better approximation of the final game which would still be governed by some strict rules.

Playing the game was still fun, but mostly not because of the game itself, but because we could just change it and do what we want, which many games don't allow. The randomness could mimic the fast pace of the final game a bit and was probably the most fun part of the prototype, but the game just took too long to be really fun for more than a few minutes — in that time about one or two toppings were pushed over the rim of the pizza if nobody was stalling, which translates to about 30 seconds of the final game. So the video game at least should be much more fun, or phrased differently won't take as long for the same amount of fun.

Since the prototype is very different from the final game (the prototype is exclusively about strategy and luck, while the final game will be mostly about reflexes, skill and some strategy), we cannot directly apply much of what we learned directly to the final game. For example, we spent most of time defining moves and rules for turns, which will be quite different in the video game, as there time will be continuous, and thus movement will be continuous too, making many attacks from the paper prototype either much less or much more effective in the video game than they are in the prototype, for example the salami can hit other toppings much more often, as it can hit other toppings on any point along its flight, not just at the start and end of a turn, and the mushroom's attacks' short ranges might allow most toppings to evade before the attack actually hits.

So all in all we learned that balancing will be hard (which we figured beforehand anyway due to the completely different toppings), and that we have to make an effort to define how quick the game should be, i.e. how fast the toppings should move and push each other, which was really difficult in the prototype and we didn't really manage it. We must also figure out how to prevent people from just standing in the middle of the pizza, as in the prototype one could almost indefinitely stand in the centre without giving the other player a chance to push you off the pizza, e.g. by making most of the centre out of tomato sauce.

We didn't change the design of the game yet, as the game kind of worked as it is, and the issues that will be most problematic could not be addressed in the prototype well, if at all.