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Roller Derby

Skates. Speed. Getting smashed face first in to the wall. What could be better?
For our project we decided to build a board game on the awesome sport that is roller
derby. Translating the awesome and fun aspects of roller derby into the comparatively
slower (not to mention less physically challenging) realm of board games, however,
actually turned out to be a bit of a challenge. Some parts of the design process, such as
the general design of the board as a round track, were easy. On the other hand, how to
treat the parts of the game, like fouls and assists, that bring a lot of the life and action to
the real sport proved to be a bit of a struggle.

In the first iteration of our play, the rules were extremely simple. All we had
really decided was that it would be a two player game where each player would control
five pieces (one jammer and four blockers) in their effort to gain the most points over the
course of two sessions or "jams" composed of fifteen turns each. At the time we had also
decided upon the movement of the pieces as counter clock-wise around the board where
the number of spaces moved was determined by the roll of one dice for the blockers and
one for the jammer. We hadn't really decided what we wanted to do with fouls and
assists other than we did, indeed, want to incorporate them into the game. However, we
felt that playing the game as soon as possible, just like we discussed in class during the
Robot vs. Tank exercise, was important to get a feel for the game.

It quickly became clear that even though we did have a good base mechanic, there was a lot lacking in the interaction between players. As one of our readings indicated, games should be able to be treated as systems of conflict and our game at the time did not have many ways to interact with the other player and, as a result, was really not a strong game (Salen and Zimmermann, 2006). We needed to create a way for drama to naturally occur between the players. In order to facilitate the drama, we placed foul spaces randomly around the board and decided that a player would be fouled if they landed on or passed through a foul space. After play-testing, it turned out that the second part of that rule was actually just as important, if not more important, than the first part because it resulted in a slight emergent strategy: if a player could block using their pieces just right he could actually force the other player to move through a foul spot and take a foul. For example, in Figure 1, if all of the blue pieces have already been pushed once, the red piece is forced to move into the foul space.
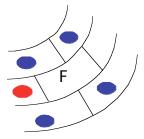

Figure 1: Forced Foul

Once the players realized they could do this, they often combined this with the action of splitting up the opponent's pieces such that the opposing piece also got a penalty for being too far away from its fellows. In this way, if played correctly, one player could force another to take a lot of fouls. The next step with fouls was relatively easy. We knew from normal roller derby that if enough fouls were accumulated by any one team, then they went to the penalty box for a set period of time so it was not very

difficult to make the jump from that real-world action to putting a piece in the penalty box for a few turns after four fouls.

The next item we needed to implement to help out with the player conflict was the assist cards and the normal interaction between pieces on the board. We decided early on that there should be some sort of physical interaction between the pieces that was simple enough not to require an assist card – after all, not all physical interaction between roller derby players is intense enough to warrant special attention. Some of the interaction is just a bit of jostling between players. We decided the perfect way to implement this was a simple pushing mechanic between pieces that made it so that blockers could push blockers on their own team, blockers on the opponent's team, or the jammer on either team forward one space given that the piece being pushed had not been pushed once already. Pieces can be pushed one space diagonally to another track or may be pushed one space forward. Since the movement of the blockers on a team was constrained to the value of the dice rolled, adding a mechanic under which a player, if clever, could get a good amount of extra moves proved to be an awesome addition because it added a lot of strategy to blocker movement.

The assist cards, on the other hand, ended up being a little more difficult to decide upon. Making it so that the players only got assist cards when they landed on a certain place on the board was our first idea. However, we eventually dismissed the idea as lacking if implemented alone simply because it would make it possible for one of the players to never get an assist cards. Since we were aiming for a sense of player interaction and conflict that mimicked real roller derby matches, having it so that the aggression was only one sided did not fit. As a result, we decided to implement the idea

that in addition to the ability to get assist cards by landing on certain spots on the board, players would also receive one assist card every three turns with the exception of the first turn when they would receive two to start off the game. Initially, the assist cards themselves were decided to be Brake (resisting a push), Carry (blocker carrying a jammer), Hard Push (push an opposing player out of bounds for one turn), and Swing (blocker swings the jammer from behind them to any open space in front of them).

After play testing it again with our rule-changes to fouls and assists, we found yet another change that needed to be made: the speed of the jammer. At this point the jammer movement was calculated by the roll of one dice and the cumulative possible movement of the blockers was also determined by the roll of one dice. With only one dice, not only did both the blockers and the jammers move slowly, but the jammers had an extremely hard time passing the blockers. What this meant was that we ended up with a really slow (and boring) progression of pieces around the board with no points being scored. After realizing that this was a fairly large problem for our game, we ended up going through multiple iterations of play-testing both by ourselves and with other people to find the best combination of dice for the blockers and the jammers. We quickly found out that one die for the blockers and two for the jammers was still extremely slow even though the jammers were more often able to actually pass the blockers. We went from one die for blockers and two for jammers to two for each in an effort to make everything faster. This had some measure of success. However, after play-testing with friends who had never seen the game before, we decided that the jammers were once again having a hard time lapping the blockers so we added a third, and final, die to their count. So, in the end, we were left with two die for the blocker movement and three for the jammer.

This ended up giving a nice balance between relatively quick overall movement around the board by the blockers while still giving the jammers enough leeway to still lap them and gain points.

We hit upon another idea not through play-testing but during Jesper Juul's lecture on rule-breaking. During the class we had to do an exercise where we introduced the ability to break the rules in our game. We actually found this difficult to implement because every time we thought of a cool way to "break our rules," it centered around making a rule to allow for breaking the rules which defeated the purpose. In the end we toyed with two ideas: Distract the Referee and Break the Rules. The Break the Rules card would allow the player to do just what it sounds like. The player could play the card and basically do what they wanted within reasonable boundaries that would be decided by the players themselves the course of the game. This allowed us to not really define a "rule" for breaking the rules while still allowing an opening for breaking the rules we created. On the other hand, Distract the Referee went right along with the actual fiction of the game of roller derby and involved deliberately ignoring a foul or getting out of the penalty box before your time was out. This assist card, as opposed to the Break the Rules card, was actually defined and so did not really constitute as breaking the rules in quite the same way. However, after play-testing, we realized that the Break the Rules card was really too powerful and we did not think it went well with the balance of the game. On the other hand, Distract the Referee went perfectly, so we kept it for the final rule-set. In addition, the idea of cheating made us think more about sneaking around the rules and eventually led to the Camouflage card that allows a jammer to move amongst the blockers of another team.

Over the course of one of our final play-tests, we once again returned to a debate that we had after every play-test. Exactly what are the bounds of pushing another piece without an assist card? We were able to agree on the fact that there should be some limit to how far one piece can push another, but had trouble deciding upon exactly what the limit should be. If there was not a limit one player could line up all of their pieces and then just use the piece at the end to push all of the others around the board. What we had been initially unable to decide was whether we should have it such that each piece can only be pushed once per turn or such that each piece can only push once per turn. Eventually, however, we did decide to have it so that each piece can only be pushed once per turn. This made it so that there are eight potential pushes per turn (if you ignore the jammers) versus the four possible moves if each blocker is only allowed to push once per turn. We felt that having more possible pushes made for a much more dynamic game in addition to a game more in tune with the fiction of the game itself.

Another change we initiated after play-testing, and that happened to parallel one of the rules in the 400 Project Rule List, was shortening the length of a jam and re-arranging how the turns were allotted during the jam to reduce player fatigue (Falstein and Barwood, 2006). In the earlier iterations, we had fifteen total turns plus one additional turn where the blockers were allowed to move by themselves so that they would get a head start on the jammers just like in real roller derby. This turned out to be fairly tedious and unnecessary since, on the one hand, the players could end up playing all sixteen rounds with each round taking at least a couple of minutes or, if the players were good, the lead jammer could call off both jams right away and never get past the fifth or sixth turn. In addition, allowing the blockers to get only a one turn head start

made it so that if one person won the first jam and was able to go first and get his jammer in front of the blockers right away then he could call off the second jam before the other player made any moves. To battle the tedious aspect of the fifteen turns, we shortened each session to six turns, and to cope with the clear advantage to the winner of the first jam, we made it so that the first two turns of the total six were devoted to blocker movement. The latter made it so that even if one player won the first jam and went first in the second jam, the other player still had some sort of chance to get past him and continue the game.

In the end, we feel like we managed to make a game that was not only true to the sport itself, but also fun and engaging. The mechanics of the game and the interaction that it both allows and encourages makes it so that the game is a nice balance between strategy and chance. After all, you could plan out your pushes and moves to put your players in an optimal position, but the chance aspect of rolling the die and receiving assist cards ensures that your opponent could at any point Hard Push you into a wall.

References

Salen and Zimmerman. *Rules of Play*. Cambridge, MA: The MIT Press, 2004.

Falstein and Barwood. *The 400 Project*. http://www.theinspiracy.com/400_so_far.htm