

Game Programming Lab 2016

Dance with the Cooks

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Prototype Chapter:

Physical prototype setup:



Game Elements:

- Chess Board: the playing field / dance floor
- Chess Knights: represent the player character, position and orientation are important
- Wooden Chips: represent the cook's fame stars
- Dice: to simulate missing the beat of the music

Basic Rules:

The physical prototype is turn based game where all players actions are executed at the same time. Every player controls one character. A character is placed on a tile and faces one of the adjacent tiles. Every turn, each player can execute one of the following actions:

- Move to the field in front of him.
- Turn to face another direction (horizontally or vertically)
- Attack the field in front of him

An action is successful when the player rolls higher than 1 on a six sided die, or something else than the red king on our poker dice, else the player doesn't get to act in this turn.

Moves are successful if the field is unoccupied, either because no other player was there before or the other occupying player is moving out of it in this turn. If two or more players want to move into the same field they all fail.

Attacks always target a field and not a player. An attack is successful if there is an opponent in the targeted field, either because he failed to move out of it or because he moves into it in this turn.

When a player lands a successful attack his victim will get knocked backed one field away from the attacker, unless the field he would get knocked to is already occupied.

When an attack was executed successfully the attacking player steals a fame star from his victim and adds it to his own stack of fame stars.

The goal of the game is to have the most fame stars at the end of the game. Players don't get taken out of the game if they have no fame stars left, everyone can go on competing until the round is over.

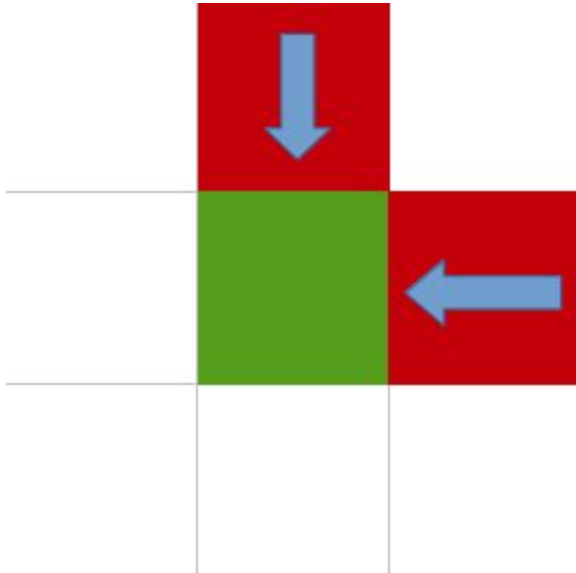
Special Rules:

Multiple Knockbacks:

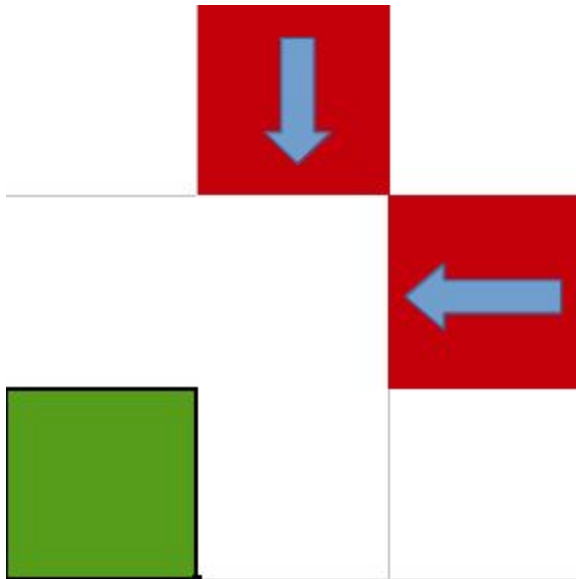
Knockback is additive, so if a player gets hit by multiple opponents in the same round their knockback gets added up.

Example 1:

Two players attack another player from above and from the right:

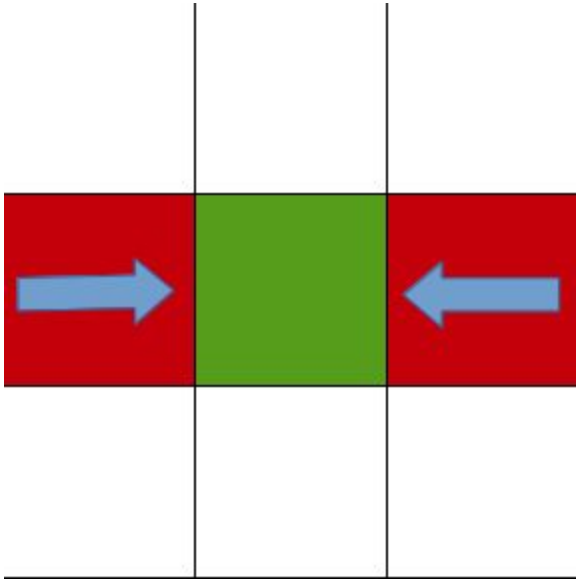


The attacked player gets knocked one tile to the left and one tile downwards:



Example 2:

Two players attack another player from the left and the right. The two knockbacks cancel each other out:

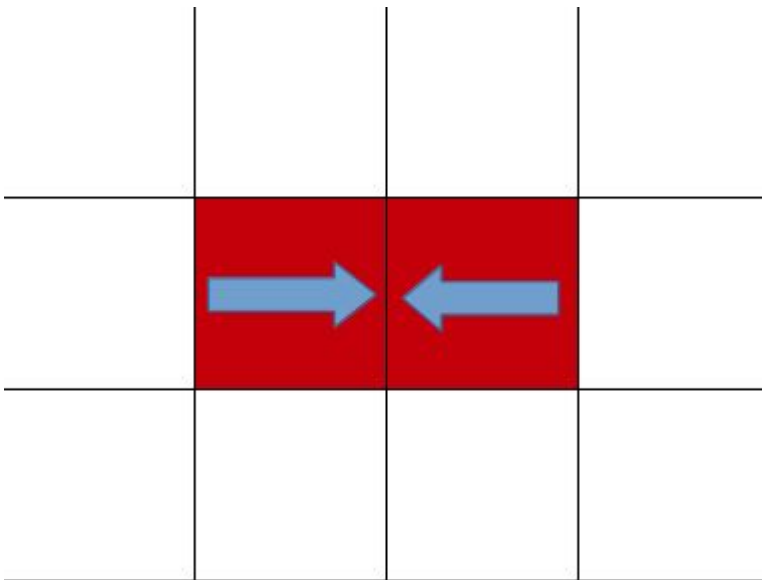


Mutual Attacks:

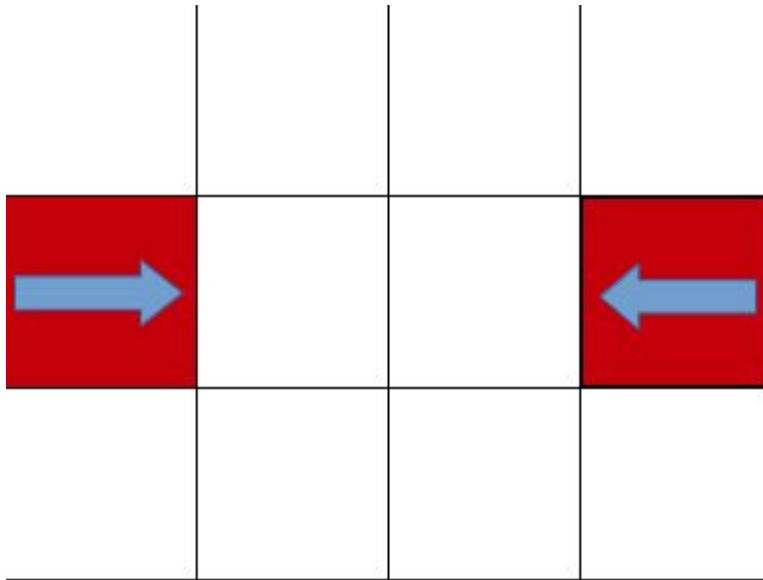
If two players attack each other at the same time they both get knocked back and no fame stars get exchanged.

Example:

Before:



After:



Playing the Game:

As the final game is supposed to be a rhythm and not a turn based strategy game, we had to play the game in a fast paced way. That's also why using the computer for generating the random numbers was useful. We didn't add some kind of timing constraint, but simply tried to act as fast as possible.

Conclusion:

We played the game many times and had to adjust the rules. The main problem we faced was a deadlock like situation, where each player's optimal move would result in the same situation as before. Especially in 1 vs 1 matches this problem occurred, as those deadlocks won't be broken by the actions of a third player. In the final game we will try to face these problems by adding more randomness in the form of environmental elements:

- Audience that throws tomatoes and chairs at players that don't move.
- Add moving NPC actors (fridge, oven, ...)
- Traps
- Projectiles

To incorporate NPC actors without breaking the current scoring system, a player, hit by a NPC actor, will lose a fame point, which will fall to the ground near the player. Of course this point can also be collected by an enemy.

While in the prototype the knockback happens in the same turn as the attack, in the final game the knockback will probably happen in the turn after, to have enough time for the attack and knockback animations.