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BA COMPUTER GAMES DESIGN

GAME THEORY & DESIGN

Game Prototyping: Part 2



Game Prototyping: Part 2

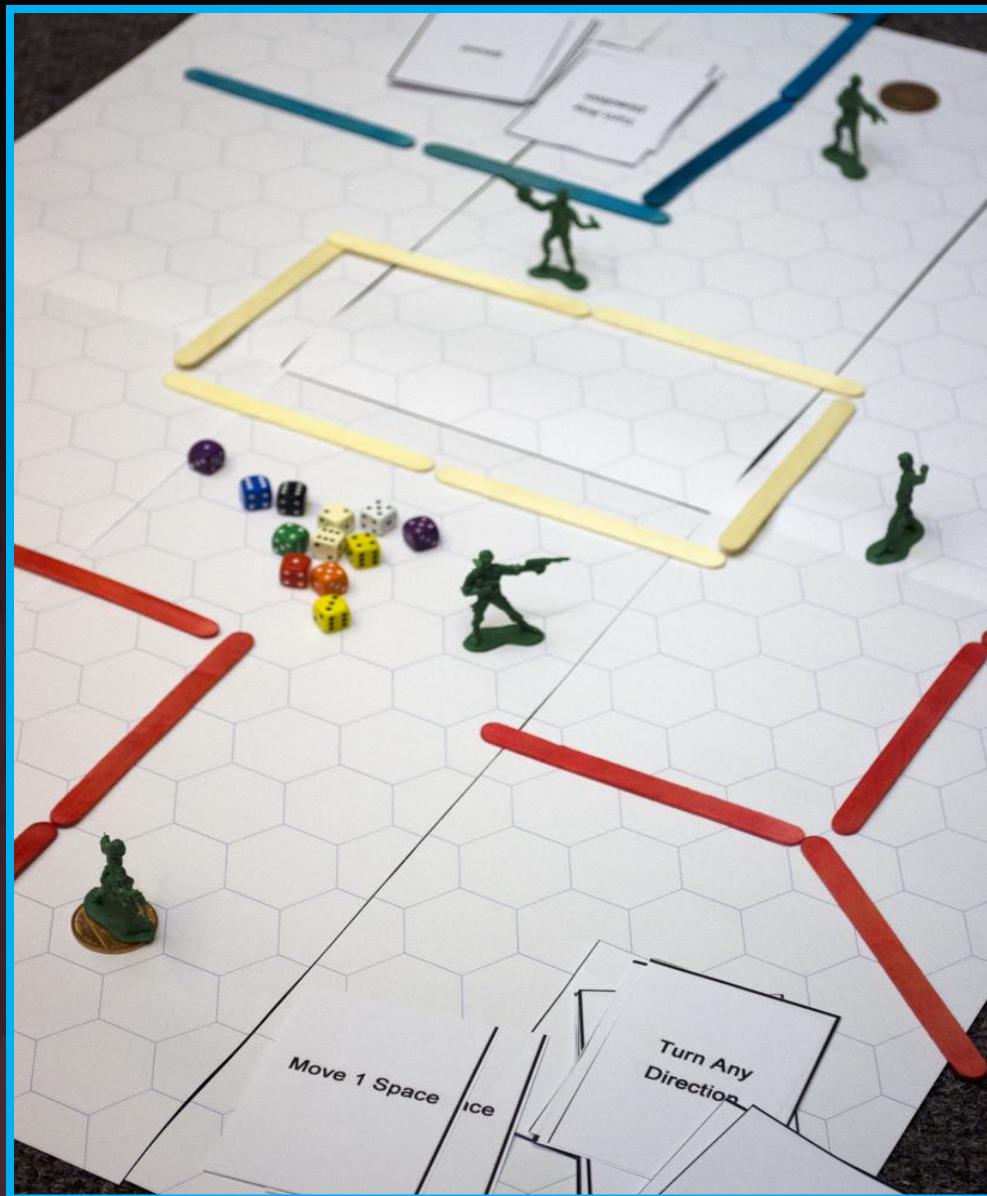
Building a Physical Prototype

(Fullerton, Swain & Hoffman, 2004, pp.160 - 163)

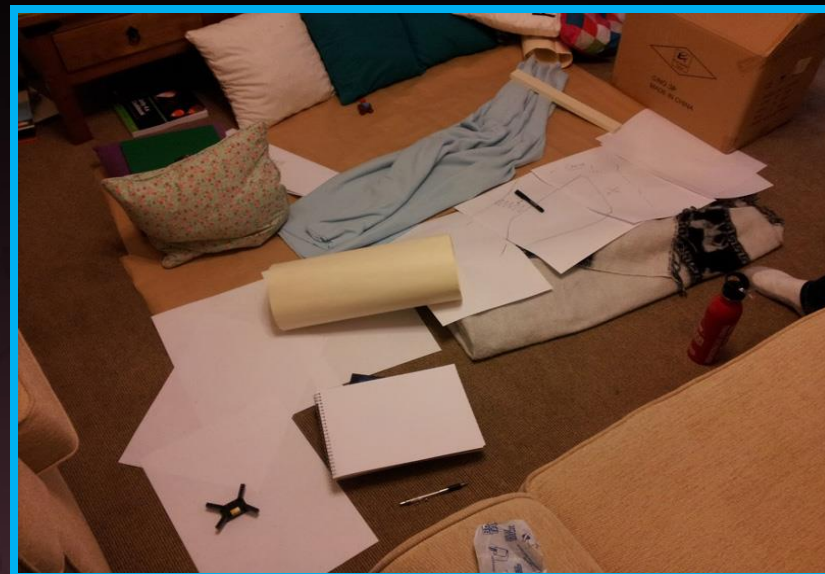


GAME THEORY & DESIGN

Game Prototyping: Part 2



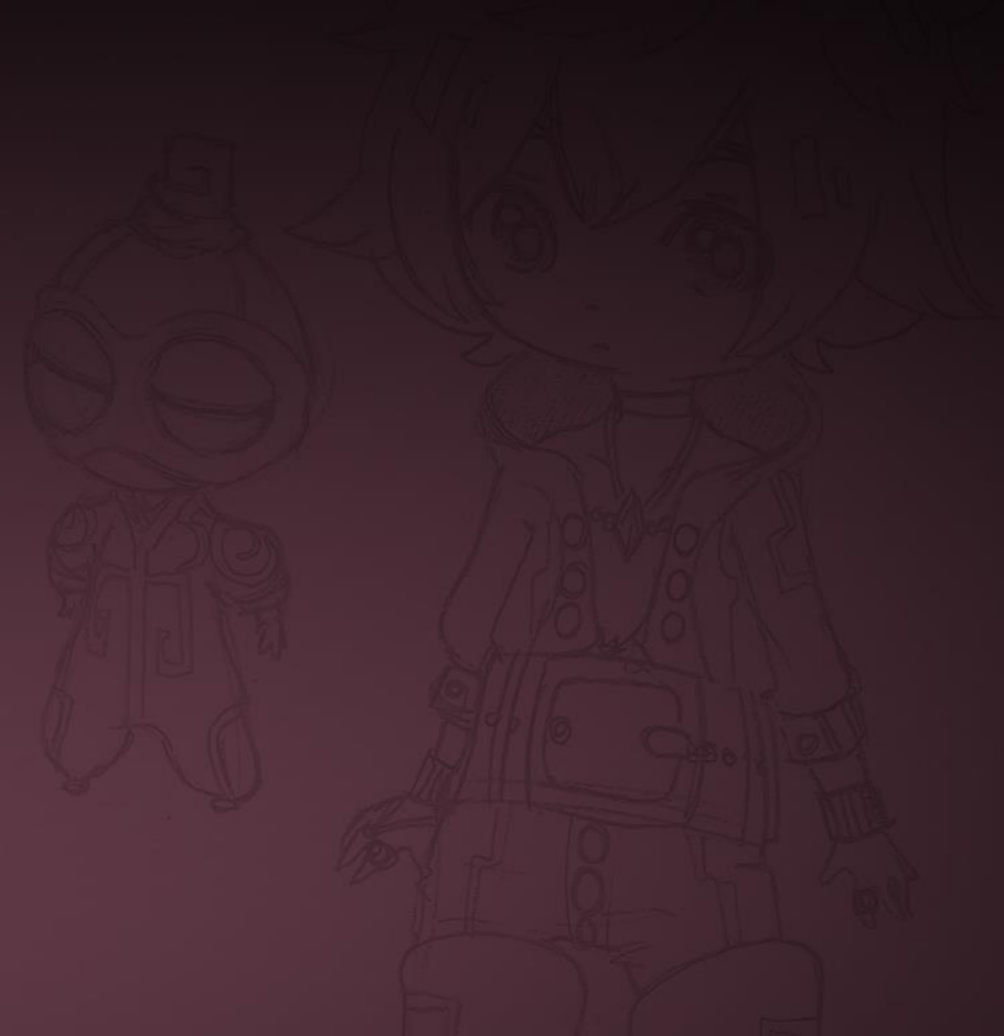
Building a Physical Prototype





Elements to cover:

- Units
- Movement and Shooting Rules
- Sequence of Play (Rounds-based)
- Exercises
- Suggested Additions





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Units



Units

Each unit is controlled by a player. They must be able to occupy one cell on the grid.

Roll a die. The player with the lowest number places their unit on the grid first.

In clockwise order, each player must choose their starting cell and place their unit on the grid.





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Movement and Shooting Rules

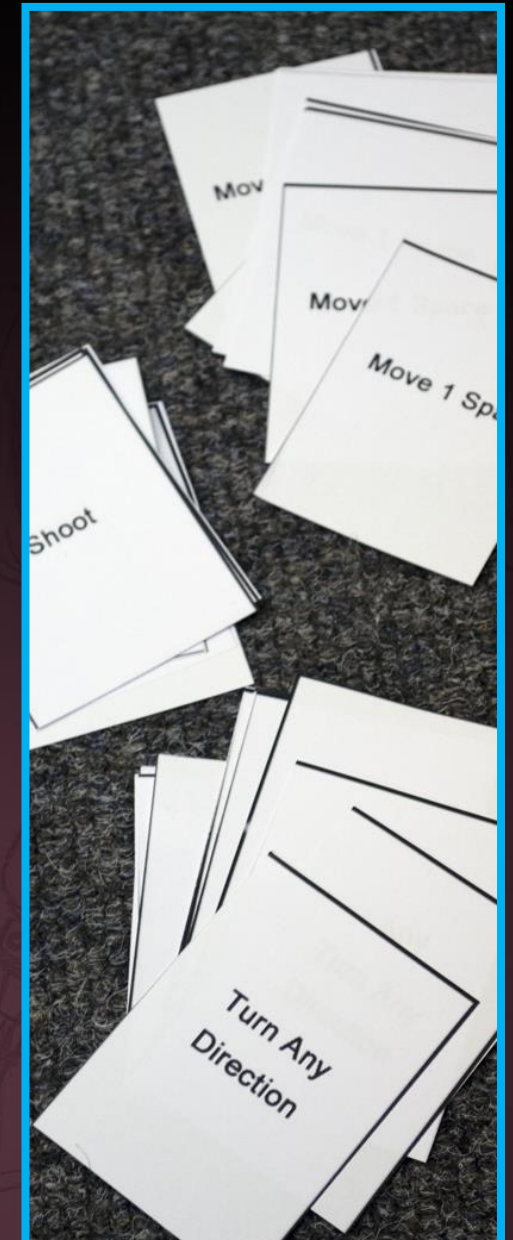


Movement and Shooting rules

Each player gets the following nine cards:

- “Move 1 Space” x 1
- “Move 2 Spaces” x 1
- “Move 3 Spaces” x 1
- “Move 4 Spaces” x 1
- “Turn any direction” x 2
- “Shoot” x 3

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Sequence of Play



Play is executed in rounds

- 1) **Build Stack:** Each player chooses **3 cards** and places them **face down** on the table in a stack.
- 2) **Reveal:** Each player turns over their **top card**.
- 3) **Resolve Shoot cards:** Players with a **Shoot card** fire in the direction their unit is pointed. Follow an imaginary line across the grid. If this line intersects with a cell containing another unit, the shot hits. Shots happen simultaneously so that **two or more players may hit at the same time**.
- 4) **Resolve Turn cards:** Players with **Turn cards** turn their unit to whatever direction they please. If two or more players have **Turn cards**, roll a die to determine who turns first.
- 5) **Resolve Move cards:** Players with **Move cards** move their unit the number of spaces specified on the card. If two or more players have **Move cards**, roll a die to determine who moves first. Players cannot occupy the same cell.
- 6) Repeat steps 2-5 for the second card in the stack, then for the final card.
- 7) If a unit is shot, **remove it from the grid**, choose a spawning point and the player will reappear there at the beginning of the **next round**.



Exercise 1

- Build the prototype and test it out.

Describe any problems that you encounter.

- In addition, list out any questions you have while building it.



Exercise 2

- For an additional challenge, come up with your own movement and shooting rules.
- Why have these decisions / rules been made for the game?



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Suggested Additions



Add a scoring system

Make players track the number of kills they get. The first to get 10 kills wins the game.

Include a hit percentage

The percentage decreases by 10% for each hex of distance between players. Calculate hits and misses using a ten-sided die.

Provide hit points

Have each unit start with five hit points. One shot suffered removes one hit point.



Drop in First Aid

If a unit stands on a First aid hex on the board for a full round, then their hit points return to their original amount.

Add Ammunition

Each unit starts with 10 rounds each. Every time they shoot, one bullet is removed. If a unit stands on an ammo hex for a full round, they will reload their clip.

Introduce other weapons

New weapons can be placed on the grid, e.g. More damage, higher accuracy, more bullets, etc. If a unit stands on the weapon, they can use it in the next round.



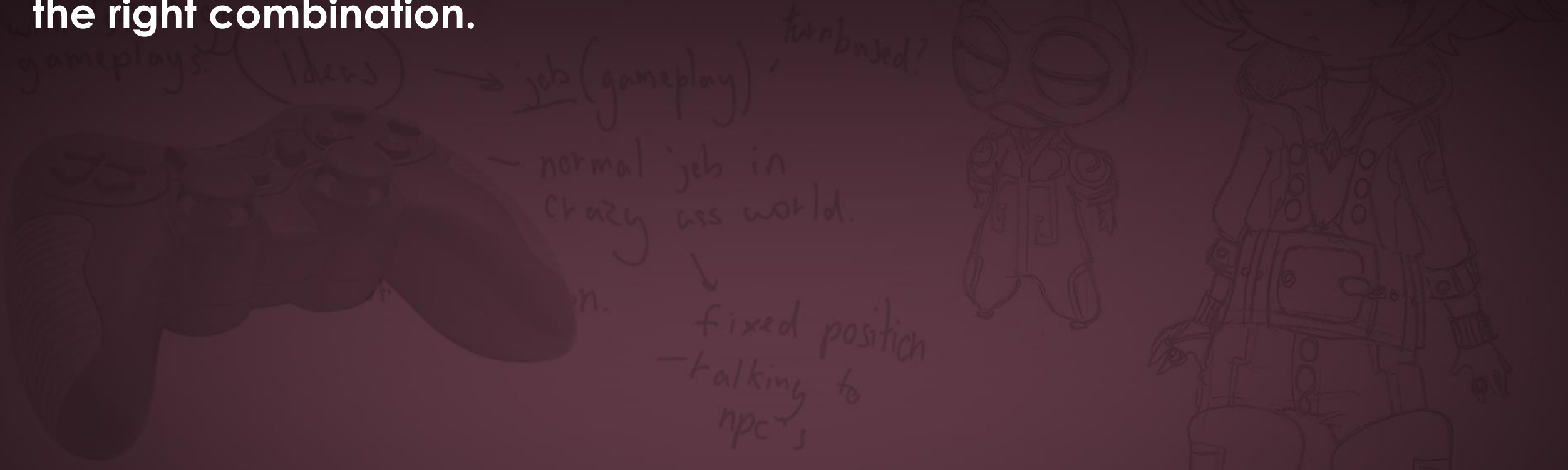
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The Process and Purpose of Game Prototyping



New rules and features can continue to be added, altered and removed.

You can continue adding, testing and tweaking until you come up with the right combination.





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You can continue adding, testing and tweaking until you come up with the right combination.

Each time you add a rule or feature, it may spark new ideas and lead you down a path you didn't expect to go.



This is the heart of the creative process, and you should encourage yourself to **try things that may seem ridiculous or absurd**, and just see what happens when you play the game.





Any questions?



Books

Fullerton, T., Swain, C., & Hoffman, S. (2004) *Game Design Workshop*
CMP Books, USA.



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