Lecture 2: Intro to Breakthrough

AI For Traditional Games
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UNIVERSITY OF DENVER

Today

- Handouts
- Introduction to course project
  - Play against my AI
  - Play Hop Step on iPads against each other
  - Discuss the game and its properties
- State Spaces
  - How do we represent states?
  - How should we implement Hop Step?

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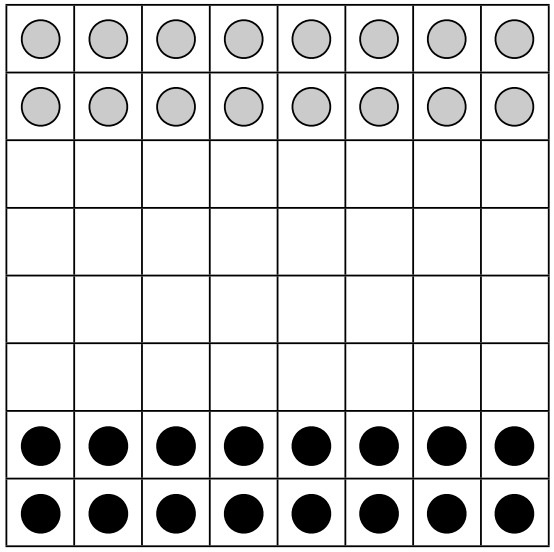
Breakthrough



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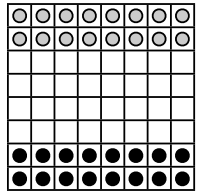
Breakthrough: Rules



- Pieces can only move forward
  - May move straight or diagonally
  - May only capture diagonally
- First piece to the back row wins

- Play & learn the game

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vt100 terminal commands

```
void GameState::gotoxy(int x, int y)
{
  printf("%c[%d;%df", 27, y, x);
}

void GameState::clrscr()
{
  printf("%c[H%c[J", 27, 27);
}

void GameState::topscr()
{
  printf("%c[H", 27);
}

void GameState::setcolor(int color, int mode)
{
  printf("%c[%d;%dm", 27, mode, color);
}
```