

# ★二、模拟与仿真分类及相应案例

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## 模拟与仿真分类及相应案例

展示性模拟

实验模拟

决策性模拟

教学实训模拟

情景行为模拟

# 2

## 模拟与仿真分类及相应案例

展示性模拟

# 2

## 模拟与仿真分类及相应案例

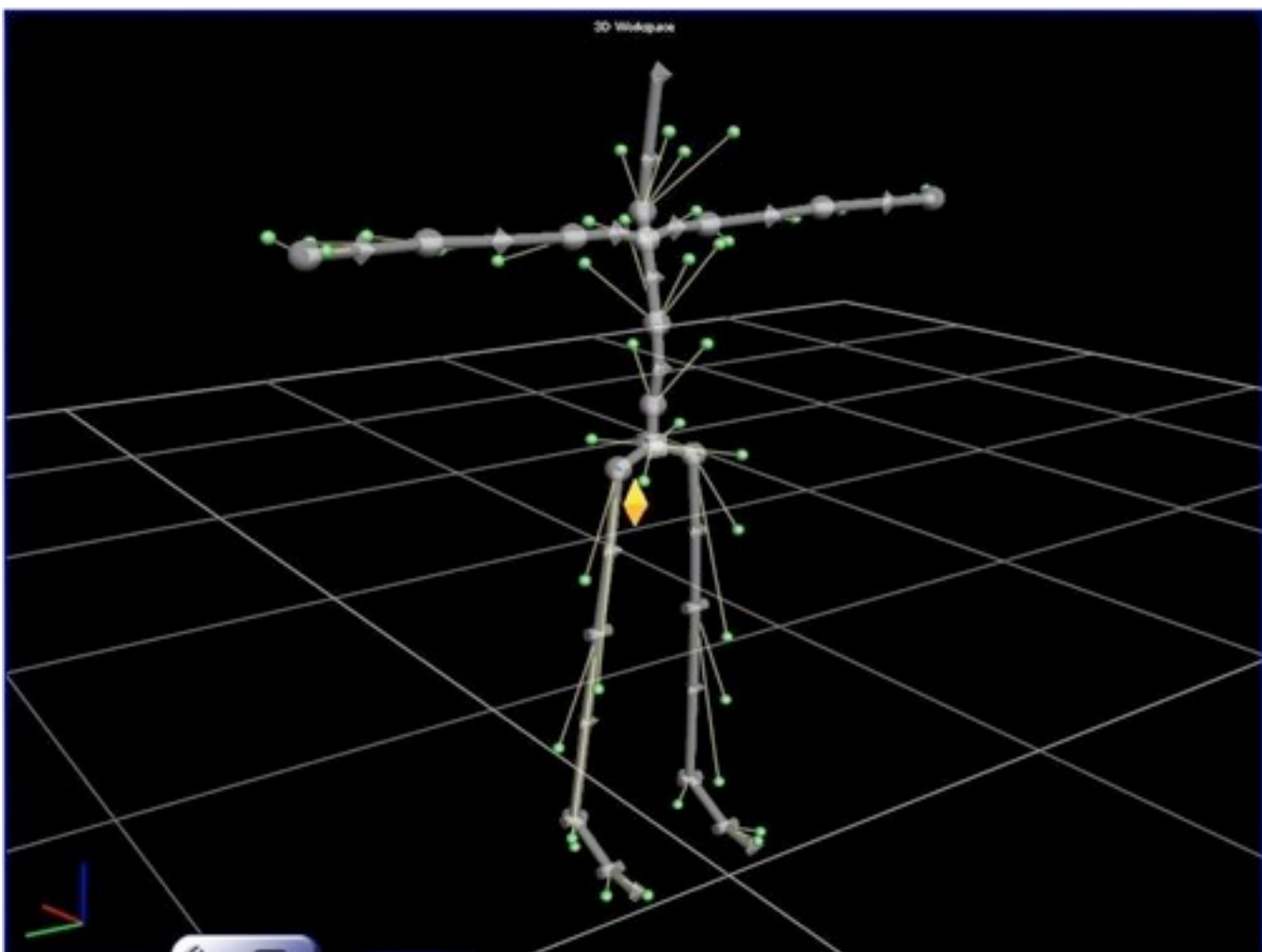
### 展示性模拟



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## 模拟与仿真分类及相应案例

### 展示性模拟



- ★ 运动捕获技术
- ★ 3D MAX 建模

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## 模拟与仿真分类及相应案例

### 实验模拟

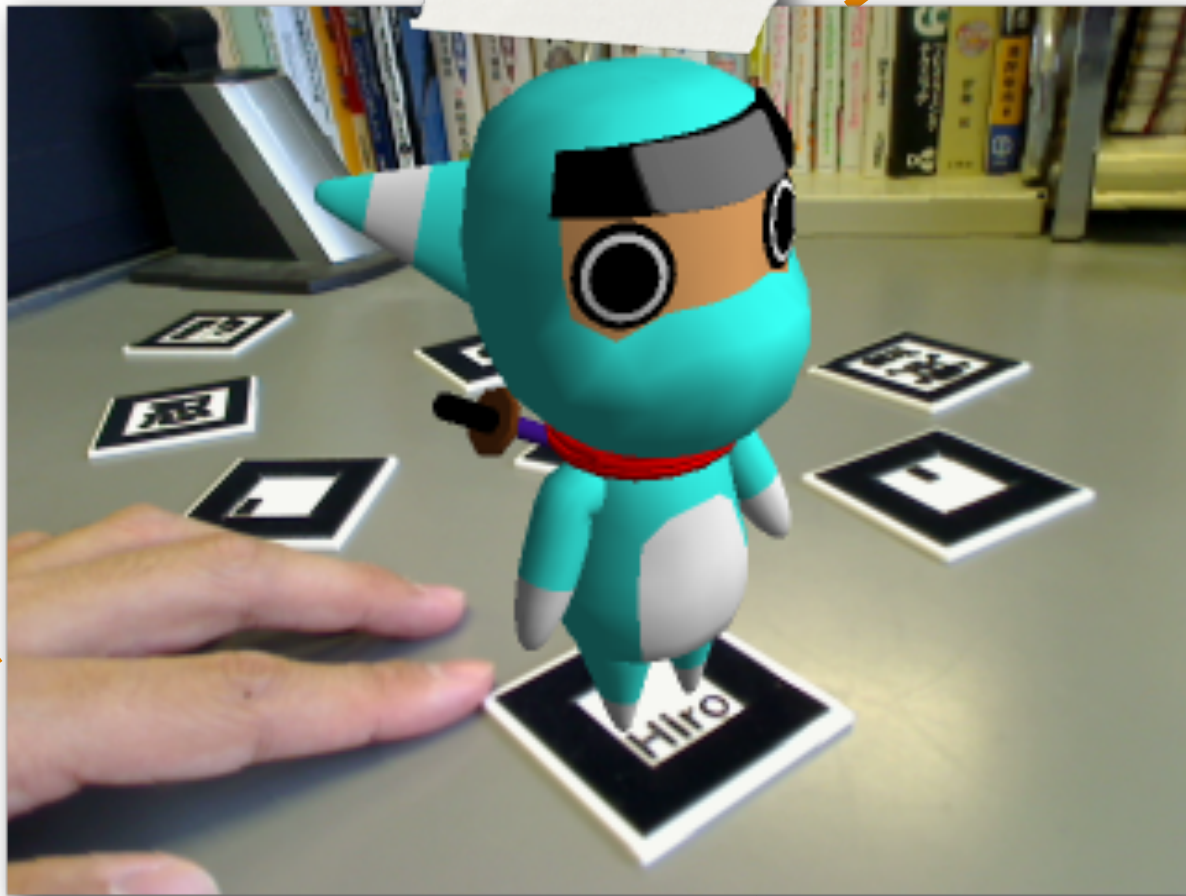


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## 模拟与仿真分类及相应案例

### 实验模拟

虚实融合



★增强现实技术

模拟在现实中难以观察、测量的场景

人机交互  
实时更新

# 2

## 模拟与仿真分类及相应案例

### 决策性模拟

JA MESE

- ★ 价格
- ★ 产品数量
- ★ 市场营销
- ★ 投资
- ★ 研发



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# 模拟与仿真分类及相应案例

JAME

## Industry Report

Q6



"Some Holo-Generator companies are really putting on the Ritz with their advertising. I've seen some new brochures that you'd guess were selling Rolls Royces! I even saw my old wrestling buddy, Crunch CanHead, in a Holo-Generator TV commercial."

| Ranking |              | P.I.  | Sales      | Net Profit | Rtd. Earnings | Unit Price | Share |
|---------|--------------|-------|------------|------------|---------------|------------|-------|
| 1       | TTB Inc.     | 1,530 | 137,853.53 | 89,686.00  | 330,857.00    | \$89.69    | 9%    |
| 2       | FLYAWAY      | 1,528 | 140,707.92 | 85,100.00  | 330,043.00    | \$89.68    | 9%    |
| 3       | AERO         | 1,471 | 161,569.44 | 96,747.00  | 315,801.00    | \$84.68    | 11%   |
| 4       | KILLER Inc.  | 1,448 | 141,210.00 | 85,187.00  | 312,085.00    | \$90.00    | 9%    |
| 5       | FAKER Inc.   | 1,446 | 132,525.00 | 78,472.00  | 312,318.00    | \$95.00    | 8%    |
| 6       | OBAMA Inc    | 1,423 | 117,120.00 | 69,410.00  | 307,568.00    | \$96.00    | 7%    |
| 7       | EMPEROR Inc. | 1,392 | 137,585.61 | 82,575.00  | 299,727.00    | \$87.69    | 9%    |
| 8       | UHHUH Inc.   | 1,339 | 139,107.54 | 82,877.00  | 287,686.00    | \$88.66    | 9%    |

| Units          | % Change |      | Productivity         | % Change   |     |
|----------------|----------|------|----------------------|------------|-----|
| Total Orders   | 12,378   | 11%  | Employment           | 840        | 0%  |
| Total Produced | 12,274   | 12%  | Sales/Employee       | 1,318.67   | 7%  |
| Total Sold     | 12,336   | 12%  | Units/Employee       | 15         | 13% |
| Total Capacity | 12,274   | 12%  | Capital Invest.      | 491,055.00 | 12% |
| Inventory      | 1,351    | (5%) | Capacity Utilization | 100%       | 0%  |

| Dollars          | % Change     |       | Economics        | % Change   |     |
|------------------|--------------|-------|------------------|------------|-----|
| Industry Sales   | 1,107,679.04 | 0%    | Prime Rate       | 10%        | 0%  |
| Average Price    | \$89.79      | (5%)  | Loan Limit       | 50,000.00  | 0%  |
| Total Production | 12,274       | 12%   | Tax Rate         | 20%        | 0%  |
| Avg. Prod. Cost  | \$10.89      | (6%)  | Tax Paid in Qtr. | 167,514.00 | 10% |
| Avg. Total Cost  | \$21.90      | (14%) | Tax Paid to Date | 624,944.00 | 27% |



"That's it, Brock. Companies can't push product unless they dazzle with promotion. All those R&D dollars spent are worthless unless Marketing then takes up the charge and persuades consumers they can't live without the latest."

模拟

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## 模拟与仿真分类及相应案例

## Industry Report for Period 9

| Units          |       | Change | Dollars          |          | Change |
|----------------|-------|--------|------------------|----------|--------|
| -----          |       | -----  | -----            |          | -----  |
| Total Orders   | 9669  | 15%    | Industry Sales   | \$230190 | -14%   |
| Total Produced | 9692  | 1%     | Average Price    | \$ 23.81 | -25%   |
| Total Sold     | 9669  | 15%    | Total Production | \$ 82241 | -6%    |
| Total Capacity | 11921 | 6%     | Avg Pdn Cost     | \$ 8.49  | -7%    |
| Inventory      | 5546  | 0%     | Avg Total Cost   | \$ 17.56 | -12%   |

JA

| Productivity    |           | Change | Dollars            |          | Change |
|-----------------|-----------|--------|--------------------|----------|--------|
| -----           |           | -----  | -----              |          | -----  |
| Employment      | 682       | -3%    | Prime Rate         | 8%       | 0%     |
| Sales/Employee  | \$ 338    | -10%   | Loan Limit         | \$ 48000 | 2%     |
| Units/Employee  | 14.21     | 6%     | Tax Rate           | 20%      | -5%    |
| Cap. Investment | \$ 468850 | -1%    | Tax Paid in Period | \$ 12002 | -40%   |
| Capacity Util.  | 81%       | -4%    | Tax Paid to Date   | \$258522 | 5%     |

|        | WFWM     | ROSE     | EZSS     | NGDP     | TTB      | ALPHA1   | MOE      | HUIWEN2  |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|
|        | -----    | -----    | -----    | -----    | -----    | -----    | -----    | -----    |
| Sales  | \$ 30024 | \$ 23220 | \$ 38209 | \$ 23150 | \$ 31941 | \$ 38570 | \$ 25251 | \$ 19825 |
| Profit | \$ 5329  | \$ 5570  | \$ 6499  | \$ 4445  | \$ 8057  | \$ 10486 | \$ 4373  | \$ 3249  |
| Price  | \$ 24    | \$ 20    | \$ 19    | \$ 25    | \$ 27    | \$ 38    | \$ 19    | \$ 25    |
| RetErn | \$ 68202 | \$ 78842 | \$ 79729 | \$ 69398 | \$100063 | \$ 98146 | \$ 55344 | \$ 57789 |
| Un Shr | 13%      | 12%      | 21%      | 10%      | 12%      | 10%      | 14%      | 8%       |
| MPI    | 300      | 332      | 354      | 300      | 415      | 407      | 252      | 249      |

## Industry Notes

Lower costs provided the opportunity for companies to lower prices and attract more customers.

Despite lower prices, orders and sales are less than production. Inventories are up. Which direction are price and production likely to go in the next period?

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## 模拟与仿真分类及相应案例

| Ranking |                | P.I. | Sales     | Net Profit | Rtd. Earnings | Unit Price | Share |
|---------|----------------|------|-----------|------------|---------------|------------|-------|
| 1       | Martial Inc.   | 198  | 59,940.00 | 17,394.00  | 18,057.00     | \$60.00    | 15%   |
| 2       | Putin Inc.     | 175  | 54,988.00 | 15,087.00  | 15,330.00     | \$59.00    | 14%   |
| 3       | PHI Inc.       | 163  | 47,470.92 | 13,446.00  | 13,920.00     | \$54.69    | 16%   |
| 4       | BUFFET Inc.    | 159  | 51,064.02 | 13,628.00  | 13,740.00     | \$63.99    | 12%   |
| 5       | Olhogram Inc.  | 154  | 23,782.00 | 10,085.00  | 15,673.00     | \$47.00    | 15%   |
| 6       | MASTER Inc.    | 147  | 40,133.00 | 13,451.00  | 12,341.00     | \$67.00    | 9%    |
| 7       | Marketing Inc. | 58   | 46,080.00 | 13,810.00  | 1,669.00      | \$64.00    | 12%   |

| Units          |       | % Change | Productivity         |            | % Change |
|----------------|-------|----------|----------------------|------------|----------|
| Total Orders   | 5,959 | 27%      | Employment           | 746        | (1%)     |
| Total Produced | 4,916 | 24%      | Sales/Employee       | 433.59     | 55%      |
| Total Sold     | 5,422 | 53%      | Units/Employee       | 7          | 29%      |
| Total Capacity | 5,514 | 24%      | Capital Invest.      | 220,755.00 | 24%      |
| Inventory      | 704   | (72%)    | Capacity Utilization | 89%        | (1%)     |

| Dollars          |            | % Change | Economics        |           | % Change |
|------------------|------------|----------|------------------|-----------|----------|
| Industry Sales   | 323,457.94 | (1%)     | Prime Rate       | 5%        | (20%)    |
| Average Price    | \$59.66    | 4%       | Loan Limit       | 42,500.00 | 0%       |
| Total Production | 4,916      | 24%      | Tax Rate         | 15%       | (33%)    |
| Avg. Prod. Cost  | \$15.49    | (24%)    | Tax Paid in Qtr. | 17,101.00 | 94%      |
| Avg. Total Cost  | \$38.60    | (65%)    | Tax Paid to Date | 21,817.00 | 78%      |

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## 模拟与仿真分类及相应案例

### 决策性模拟

JA MESE





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## 模拟与仿真分类及相应案例

### 教学实训模拟



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## 模拟与仿真分类及相应案例

### 教学实训模拟



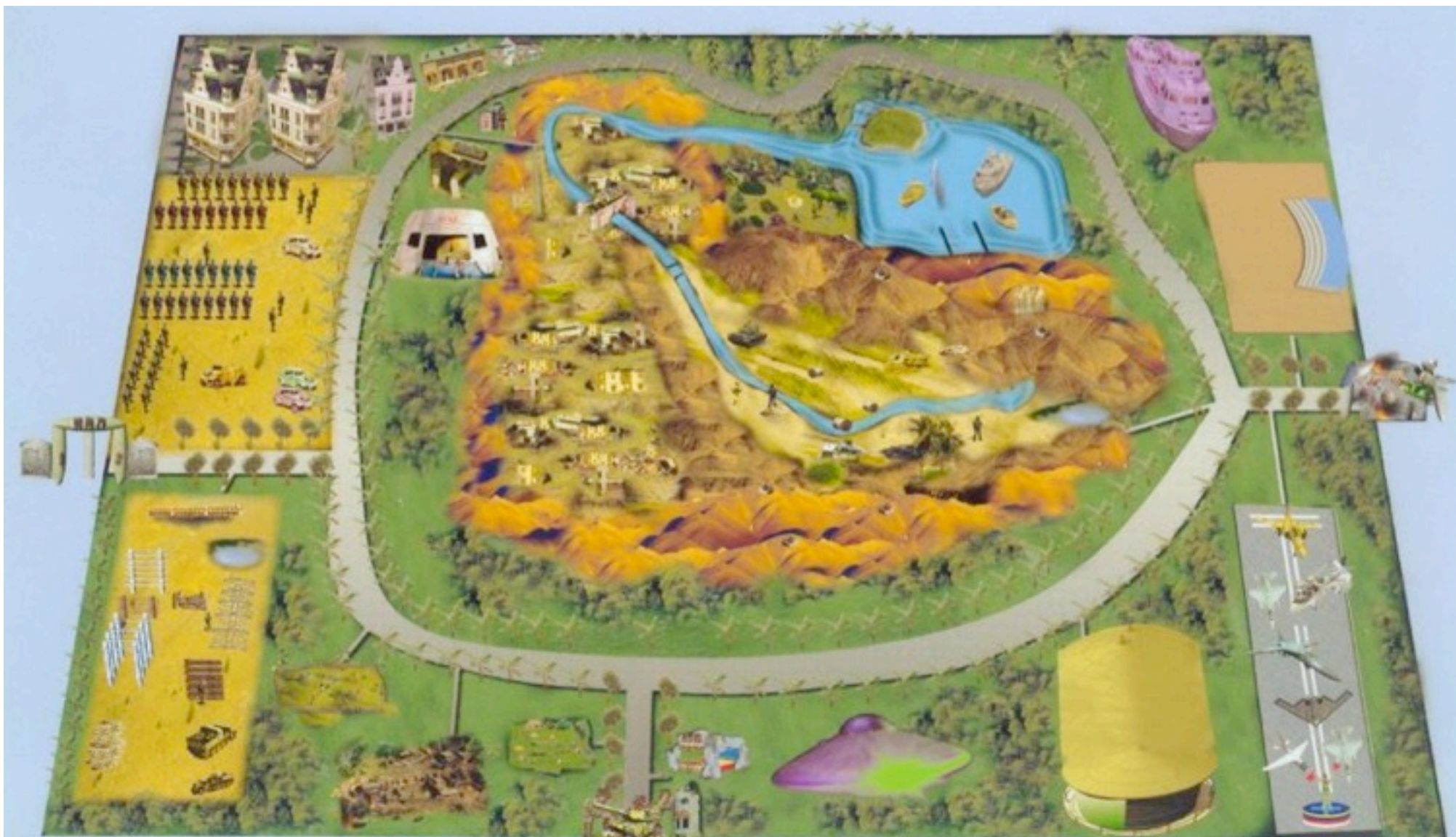
重在有反馈



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## 模拟与仿真分类及相应案例

### 情景行为模拟



中国青少年黄埔军校情景模拟

# 2

## 模拟与仿真分类及相应案例

### 情景行为模拟



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