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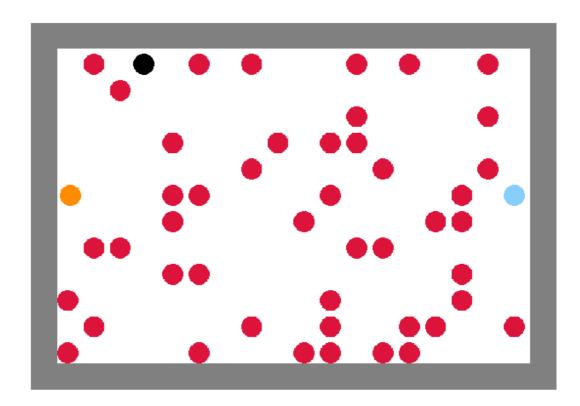
# Finding:

### 9\*6 court with 5 opponents:

After training 20k episodes, the performance is good, having about  $80\sim90\%$  chance to score. (Alpha=0.2, gamma=0.8, epsilon=0.7)

#### 12\*9 court with 50 opponent:

After training 5M episodes, the performance is still poor, had only half chance to score. ( Alpha=0.2,gamma=0.8, epsilon=0.7 )



#### 36\*24 court with 50 opponent:

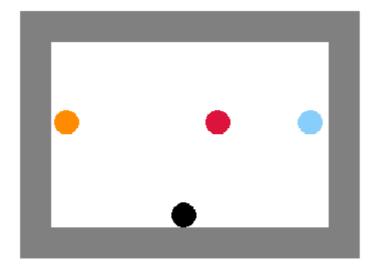
Sorry my computer can not handle that kind of compute, so I didn't do it...

## 9\*6 court with 1 opponents that change in every episode:

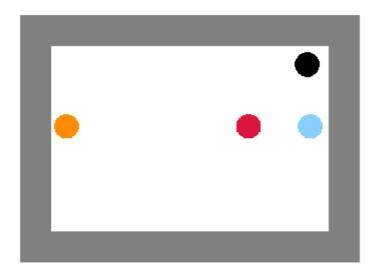
When the epsilon was setting as 0.7, it needs 1,000,000 episode to trained. But the model can deal with 1 opponent in any position. Following are some test results using the same trained model:

#### Test 1:

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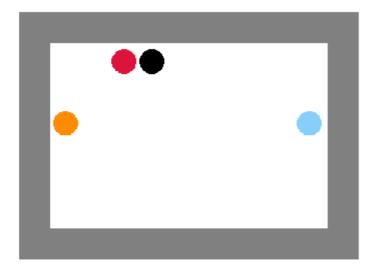


Test 2:



Test 3:

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Player successfully scored 10 times out of 10.