# Gobang

Code Structure Explain

## Player\_alphabeta.cpp or player\_minimax.cpp read\_baord() While loop main() Get\_move() Write\_valid\_spot()

## policy/alphabeta.cpp or policy/ minimax.cpp

#### Get\_move()

for all moves in legal\_actions get score of that move by

score\_of\_move()

#### score\_of\_move()

```
Search tree (Minimax / alpha beta pruning)

If now_game_state ==翰→ score=negative infinity

if now_game_state ==TIE(平手)→ score=0

If depth==0 (達到search tree的最底)->要計分->score=

Else call score_of_move() (去下一層)
```

## State/state.cpp

```
cal_state_value()
```

Else

```
判斷這個state的分數
If 自己連5 or 自己連4+有一個相連空格
return 1000000
If 對方(opnt)連4+有一個相連空格
return -1000000
```

return 自己連3的數量-對方連3數量 (呢part唔sure)

## State/state.cpp

Check\_5()

Check\_4()

count\_4()

count\_3\_op()

都係判斷棋局狀況的function (連5,活4, 眠4,活3之類...)