

Chinese Dark Chess

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Download Java

<https://dev.java/>



Play in General mode (Create a game room)

1. Go to /CDC_ubuntu2204_20240416_5_4_3/ubuntu/**open**
2. Open the terminal and enter `java -jar Launcher.jar -cli`
3. Enter the **number 4** and set the **Search Path**.
4. Confirm that the Room Type is '**General**'.
5. Exit the settings and start the game.

The next page has step-by-step pictures

Step 1 & 2

1. Go to /CDC_ubuntu2204_20240416_5_4_3/ubuntu/open
2. Open the terminal and enter `java -jar Launcher.jar -cli`

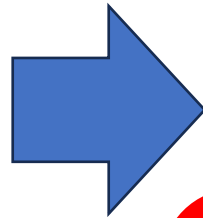
```
C:\Users\danie\Desktop\CDC_ubuntu2204_20240416_5_4_3\ubuntu\open
$ java -jar Launcher.jar -cli
Loading Library --- OK
Loading GameType Setting File --- OK
Loading Game Setting File --- OK
Loading Room Setting File --- OK

*** Launcher V5.4.3 ***
1) Show Settings
2) Show Room Settings
3) Change Game Type
4) Change Game Setting
5) Change Room Setting
6) Start Game
7) Update Game Library
8) Quit
Please enter a number to continue:
```

Step3 Enter the number 4 and set the Search Path

1

```
*** Launcher V5.4.3 ***  
1) Show Settings  
2) Show Room Settings  
3) Change Game Type  
4) Change Game Setting  
5) Change Room Setting  
6) Start Game  
7) Update Game Library  
8) Quit  
Please enter a number to continue: 4
```



2

```
*** Game Setting ***  
1) Account [a0]  
2) Password [123]  
3) Room Type [General]  
4) Start Mode [Open]  
5) LocalServer [No]  
6) MidBoard [No]  
7) Connect Mode [Mgtp]  
8) Repeat Times [100]  
9) Host First Move [Yes]  
10) Change First Move [Yes]  
11) Server IP [120.126.151.213]  
12) Timer Mode [Absolute (900/0/0)]  
13) Long Catch [3]  
14) No Eat Flip [180]  
15) Search Path [./Search/sample_code/MGTP/myai]  
16) Search Arg []  
17) Win Score [1.000000]  
18) Draw Score [0.500000]  
19) Lose Score [0.000000]  
20) Piece Score [0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0]  
21) Bonus Score [0.000000]  
22) Bonus Limit [0.000000]  
23) Back  
Please enter a number to continue:
```

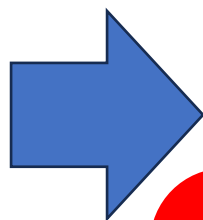
Step4 Confirm that the Room Type is 'General'

```
*** Game Setting ***
1) Account [a0]
2) Password [123]
3) Room Type [General]
4) Start Mode [Open]
5) LocalServer [No]
6) MidBoard [No]
7) Connect Mode [Mgtp]
8) Repeat Times [100]
9) Host First Move [Yes]
10) Change First Move [Yes]
11) Server IP [120.126.151.213]
12) Timer Mode [Absolute (900/0/0)]
13) Long Catch [3]
14) No Eat Flip [180]
15) Search Path [./Search/sample_code/MGTP/myai]
16) Search Arg []
17) Win Score [1.000000]
18) Draw Score [0.500000]
19) Lose Score [0.000000]
20) Piece Score [0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0]
21) Bonus Score [0.000000]
22) Bonus Limit [0.000000]
23) Back
Please enter a number to continue:
```

Step5 Exit the settings and start the game

```
*** Game Setting ***
1) Account [a0]
2) Password [123]
3) Room Type [General]
4) Start Mode [Open]
5) LocalServer [No]
6) MidBoard [No]
7) Connect Mode [Mgtp]
8) Repeat Times [100]
9) Host First Move [Yes]
10) Change First Move [Yes]
11) Server IP [120.126.151.213]
12) Timer Mode [Absolute (900/0/0)]
13) Long Catch [3]
14) No Eat Flip [180]
15) Search Path [./Search/sample_code/MGTP/myai]
16) Search Arg []
17) Win Score [1.000000]
18) Draw Score [0.500000]
19) Lose Score [0.000000]
20) Piece Score [0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0]
21) Bonus Score [0.000000]
22) Bonus Limit [0.000000]
23) Back
Please enter a number to continue:
```

1



2

```
*** Launcher V5.4.3 ***
1) Show Settings
2) Show Room Settings
3) Change Game Type
4) Change Game Setting
5) Change Room Setting
6) Start Game
7) Update Game Library
8) Quit
Please enter a number to continue: 6
```


You will finally see the following results

```
*** Launcher V5.4.3 ***
1) Show Settings
2) Show Room Settings
3) Change Game Type
4) Change Game Setting
5) Change Room Setting
6) Start Game
7) Update Game Library
8) Quit
Please enter a number to continue: 6

*** Start Game ***
Start Search...
Path: C:\Users\danie\Desktop\CDC_ubuntu2204_20240416_5_4_3\ubuntu\open\.\Search\sample_code\MGTP\myai
[Client Send: 1 name]
get= 1 name

=1 MyAI
[Client Recv: 1 MyAI]
[Client Send: 2 version]
get= 2 version

=2 1.0.0
[Client Recv: 2 1.0.0]
Login...
Create Room...
Waiting for another player...
|
```

Play in General mode (Join a game room)

1. Go to /CDC_ubuntu2204_20240416_5_4_3/ubuntu/**enter**
2. Open the terminal and enter `java -jar Launcher.jar -cli`
3. Enter the **number 4** and set the **Search Path**.
4. Confirm that the Room Type is '**General**'.
5. Exit the settings and start the game.
6. Enter the index of the established room.

You will finally see the following results

```
*** Launcher V5.4.3 ***
```

- 1) Show Settings
- 2) Show Room Settings
- 3) Change Game Type
- 4) Change Game Setting
- 5) Change Room Setting
- 6) Start Game
- 7) Update Game Library
- 8) Quit

```
Please enter a number to continue: 6
```

```
*** Start Game ***
```

```
Start Search...
```

```
Path: C:\Users\danie\Desktop\CDC_ubuntu2204_20240416_5_4_3\ubuntu\enter\.\Search\sample_code\MGTP\myai
```

```
[Client Send: 1 name]
```

```
get= 1 name
```

```
=1 MyAI
```

```
[Client Recv: 1 MyAI]
```

```
[Client Send: 2 version]
```

```
get= 2 version
```

```
[Client Recv: 2 1.0.0]
```

```
Login...
```

```
=2 1.0.0
```

```
Enter Room...
```

Index	Room ID	Room State	Host	isHuman	MidBoard	Round	FirstMove	ChangeFirst	Time	PlyTimeLimit	GroupPly	Num of Repetition	NoEatFlip
1	23489545	Waiting	a0	NO	NO	100	YES	YES	900	0	0	3	180

```
Room Index (1 ~ 1) [-1: reload]: 1|
```

Play in Contest mode

1. Go to /CDC_ubuntu2204_20240416_5_4_3/ubuntu/**open**
2. Open the terminal and enter `java -jar Launcher.jar -cli`
3. Enter the **number 4** and set up the **Account**, **Password**, **Room Type**, and **Search Path**.
 - Please enter the name you used when registering for the Contest as your account and password. **If 'Account or Password Error' is displayed, notify the administrator to create an account**
 - Set Room Type as Contest
4. Exit the settings and start the game.
5. If the administrator has set up the contest, you can see the name of the contest and enter the Index to join the contest.

Setting demonstration

1

```
*** Game Setting ***
```

```
1) Account [Yahari]
```

```
2) Password [Yahari]
```

2

```
3) Room Type [Contest]
```

```
4) Connect Mode [Mgtp]
```

```
5) Server IP [120.126.151.213]
```

3

```
6) Search Path [./Search/sample_code/MGTP/myai]
```

```
7) Search Arg []
```

```
8) Back
```

```
Please enter a number to continue: |
```

Join the contest

```
*** Start Game ***
```

```
Start Search...
```

```
Login...
```

Index	Contest Name
1	test

```
Room Index (1 - 1): 1
```

```
Enter Contest...
```

```
Waiting...
```

```
Please check whether the path of search.exe is correct or not.
```

```
Auto Ready after 10 seconds. (Press ENTER to cancel.)
```

```
Auto Ready after 9 seconds. (Press ENTER to cancel.)
```

```
Auto Ready after 8 seconds. (Press ENTER to cancel.)
```

```
Auto Ready after 7 seconds. (Press ENTER to cancel.)
```

```
Auto Ready after 6 seconds. (Press ENTER to cancel.)
```

```
Auto Ready after 5 seconds. (Press ENTER to cancel.)
```

```
Auto Ready after 4 seconds. (Press ENTER to cancel.)
```

```
Auto Ready after 3 seconds. (Press ENTER to cancel.)
```

```
Auto Ready after 2 seconds. (Press ENTER to cancel.)
```

```
Auto Ready after 1 seconds. (Press ENTER to cancel.)
```

Multiple Games Text Protocol (MGTP)

- When the program and the client are connected, the Multiple Games Text Protocol (MGTP) is needed for communication.
- There is a sample code of MGTP available for contestants to use under the path `/CDC_ubuntu2204_20240416_5_4_3/ubuntu/open/Search`

Multiple Games Text Protocol (MGTP)

	Client sends the command to your AI				Your AI returns the result to the client	
Id	Command	Parameter	Explain	Sample [Id Command Parameter]	Parameter	Sample [=Id Return]
0	protocol_version	NULL	Return MGTP Version	0 protocol_version\n	MGTP Version	=0 1.0.0\n
1	name	NULL	Return AI Name	1 name\n	AI Name	=1 Yahari\n
2	version	NULL	Return AI Version	2 version\n	AI Version	=2 5.13.2\n
3	known_command	<command>	Whether to support this command	3 known_command name\n	true or false	=3 true\n
4	list_commands	NULL	List supported commands	4 list_commands\n	<command> <command> ...	=4 protocol_version\n Name\n...

Multiple Games Text Protocol (MGTP)

	Client sends the command to your AI				Your AI returns the result to the client	
Id	Command	Parameter	Explain	Sample [Id Command Parameter]	Parameter	Sample [=Id Return]
5	quit	NULL	Request program termination	5 quit\n	NULL	=5\n
6	boardsize	<row> <column>	Set board size	6 boardsize 8 4\n	NULL	=6\n
7	reset_board	NULL	Reset board	7 reset_board\n	NULL	=7\n
8	num_repetition	<number>	Set the maximum number of board repeats	8 num_repetition 3\n	NULL	=8\n
9	num_moves_to_draw	<number>	Set the maximum number of no-eating flips	9 num_moves_to_draw 180\n	NULL	=9\n

Multiple Games Text Protocol (MGTP)

Client sends the command to your AI					Your AI returns the result to the client	
Id	Command	Parameter	Explain	Sample [Id Command Parameter]	Parameter	Sample [=Id Return]
10	move	<from> <dst>	Return move	10 move a1 a2\n	NULL	=10\n

8	a8	b8	c8	d8
7	a7	b7	c7	d7
6	a6	b6	c6	d6
5	a5	b5	c5	d5
4	a4	b4	c4	d4
3	a3	b3	c3	d3
2	a2	b2	c2	d2
1	a1	b1	c1	d1
	a	b	c	d

chessboard position code : from left to right are the English letters a to d, from bottom to top are the numbers 1 to 8

Multiple Games Text Protocol (MGTP)

Client sends the command to your AI					Your AI returns the result to the client	
Id	Command	Parameter	Explain	Sample [Id Command Parameter]	Parameter	Sample [=Id Return]
11	flip	<location> <piece>	Return Flip	11 flip a3 G\n	NULL	=11\n

8	a8	b8	c8	d8
7	a7	b7	c7	d7
6	a6	b6	c6	d6
5	a5	b5	c5	d5
4	a4	b4	c4	d4
3	a3	b3	c3	d3
2	a2	b2	c2	d2
1	a1	b1	c1	d1
	a	b	c	d

color	King	Guard	Minister	Rook	Knight	Canon	Pawn
Red	K	G	M	R	N	C	P
Black	k	g	m	r	n	c	p
Dark				Empty			
X				-			

Multiple Games Text Protocol (MGTP)

Client sends the command to your AI					Your AI returns the result to the client	
Id	Command	Parameter	Explain	Sample [Id Command Parameter]	Parameter	Sample [=Id Return]
12	genmove	<color>	Generate move	12 genmove black\n	<from> <dst>	=12 c5 c6\n

8	a8	b8	c8	d8
7	a7	b7	c7	d7
6	a6	b6	c6	d6
5	a5	b5	c5	d5
4	a4	b4	c4	d4
3	a3	b3	c3	d3
2	a2	b2	c2	d2
1	a1	b1	c1	d1
	a	b	c	d

- Color : red, black or unknown.(unknown is first ply)
- Give up : =12 a0 a0
- Flip : =12 a1 a1
- Move : =12 c5 c6

color	King	Guard	Minister	Rook	Knight	Canon	Pawn
Red	K	G	M	R	N	C	P
Black	k	g	m	r	n	c	p
Dark				Empty			
X				-			

Multiple Games Text Protocol (MGTP)

	Client sends the command to your AI				Your AI returns the result to the client	
Id	Command	Parameter	Explain	Sample [Id Command Parameter]	Parameter	Sample [=Id Return]
13	game_over	<result>	Return the winning color	13 game_over red\n	NULL	=13\n
14	ready	NULL	Ask if ready	14 ready\n	NULL	=14\n
15	time_settings	<time> (ms)	Set time	15 time_settings 900000\n	NULL	=15\n
16	time_left	<color> <time>	Return remaining time	16 time_left black 899999\n	NULL	=16\n
17	showboard	NULL	Print Board	17 showboard\n	<board>	=17 XXXX\nXXXX...

Multiple Games Text Protocol (MGTP)

Client sends the command to your AI					Your AI returns the result to the client	
Id	Command	Parameter	Explain	Sample [Id Command Parameter]	Parameter	Sample [=Id Return]
18	init_board	<board> <remain_pieces > <first_color>	The initial is the designated board	18 init_board ...\n	NULL	=18\n



Parameter Explain

- <board> : It is the codes of 32 chess pieces on the board, all separated by spaces, from top left to bottom right, first to right and then to bottom, for example: X P X K k p g X
- <remain_pieces> : It is the number of each type of chess that is alive (including unflip) on the chessboard, the order is KGMRNCPkgmrncp, all separated by spaces, for example: 1 1 2 2 2 1 4 1 1 2 2 2 1 4.
- <first_color> : It is the color of the first player, one of red, black and unknown, for example: red.
- The above parameter <board>, parameter <remain_pieces> and parameter <first_color> are also separated by spaces.

Observation and Game Record

- Observation : <http://120.126.151.216/observation.html#>
- Game Record : http://120.126.151.216/game_record.php

Contest Results Website

Connect State	Index 	Name	Rank 	Big	Small
Connected	1	711083120	1	1.5	0.5
Disconnected	2	baseline	2	0.5	1.5

- "Big" column represents score, win point +1, draw point +0.5, loss point +0
- "Small" column represents the sum of the opponent's points
- If the big column is the same, the higher the Small column, the higher the rank