

## Choosing opening books (selection with black queen)

Opening books are set with the extra ♛. (Remove the extra ♛ if it is still on the board)

|                 |                                     |   |                                    |                                      |                                      |                 |                            |
|-----------------|-------------------------------------|---|------------------------------------|--------------------------------------|--------------------------------------|-----------------|----------------------------|
| ♛a3<br>No book  | ♛b3<br>ECO A -<br>Flank<br>Openings | ♛c3<br>ECO B -<br>Semi Open<br>Openings | ♛d3<br>ECO C -<br>Open<br>Openings | ♛e3<br>ECO D -<br>Closed<br>Openings | ♛f3<br>ECO E -<br>Indian<br>Openings | ♛g3<br>Fun Book | ♛h3<br>Varied<br>(Default) |
| ♛a4<br>GM games | ♛b4<br>Perfor-<br>mance             | ♛c4<br>Stockfish<br>optimized           | ♛d4<br>Anand book                  | ♛e4<br>Korchnoi<br>book              | ♛f4<br>Larsen<br>book                | ♛g4<br>Pro book | ♛h4<br>GM 2001             |

## Setting up time controls (selection with white queen)

You can choose them by placing the extra ♛. (Remove the extra ♛ if it is still on the board). Blitz 5 minutes per game is set as default.

Movetime (seconds per move)

|              |              |              |               |               |               |               |               |
|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|
| ♛a6<br>1 sec | ♛b6<br>3 sec | ♛c6<br>5 sec | ♛d6<br>10 sec | ♛e6<br>15 sec | ♛f6<br>30 sec | ♛g6<br>60 sec | ♛h6<br>90 sec |
|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|

Gametime (minutes per game)

|              |              |              |               |               |               |               |               |
|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|
| ♛a4<br>1 min | ♛b4<br>3 min | ♛c4<br>5 min | ♛d4<br>10 min | ♛e4<br>15 min | ♛f4<br>30 min | ♛g4<br>60 min | ♛h4<br>90 min |
|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|

Fischer Time (minutes per game plus an increment per move)

|                                |                                |                                |                                 |                                  |                                  |                                  |                                  |
|--------------------------------|--------------------------------|--------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| ♛a3<br>1 min plus<br>1 sec inc | ♛b3<br>3 min plus<br>2 sec inc | ♛c3<br>5 min plus<br>3 sec inc | ♛d3<br>10 min plus<br>5 sec inc | ♛e3<br>15 min plus<br>10 sec inc | ♛f3<br>30 min plus<br>15 sec inc | ♛g3<br>60 min plus<br>20 sec inc | ♛h3<br>90 min plus<br>30 sec inc |
|--------------------------------|--------------------------------|--------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|

## Engine selection (selection with black queen)

|                    |                   |                    |                            |                               |                         |                     |                             |
|--------------------|-------------------|--------------------|----------------------------|-------------------------------|-------------------------|---------------------|-----------------------------|
| ♛a6<br>Stockfish 8 | ♛b6<br>Texel 1.07 | ♛c6<br>Arasan 20.3 | ♛d6<br>Rodent III<br>0.233 | ♛e6<br>Zurichess<br>neuchatel | ♛f6<br>WyldChess<br>1.5 | ♛g6<br>Galjoen 0.37 | ♛h6<br>Sayuri<br>2017.12.16 |
|--------------------|-------------------|--------------------|----------------------------|-------------------------------|-------------------------|---------------------|-----------------------------|

## Choosing skill level (selection with black queen)

Put the extra ♚ on your DGT board to select skill level. If no skill level is selected, PicoChess uses the highest level by default. (Remove the extra ♚ if it is still on the board). Please note that not all chess engines support levels.

|                        |                        |                        |                        |                         |                         |                         |                         |
|------------------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| ♚a5                    | ♚b5                    | ♚c5                    | ♚d5                    | ♚e5                     | ♚f5                     | ♚g5                     | ♚h5                     |
| Level 0<br>(Stockfish) | Level 3<br>(Stockfish) | Level 6<br>(Stockfish) | Level 9<br>(Stockfish) | Level 12<br>(Stockfish) | Level 15<br>(Stockfish) | Level 18<br>(Stockfish) | Level 20<br>(Stockfish) |

## Playing / Training Modes (selection with white queen)

When using these modes, please be patient and don't rush moves. Allow a few seconds for the scores and moves to appear.

**Game mode** is enabled by putting ♔a5 square. This is the default mode. You can play against the computer.

**Brain mode** is enabled by putting ♔b5 square. This is similar to game mode but the computer is thinking on your time too. This system is also known as „Permanent Brain“ therefore its name.

**Analysis mode** (enabled by ♔c5): the computer is watching the game; it does not play itself. The clock continually displays the best move for the side to play.

**Kibitz mode** (enabled by ♔d5): the computer is watching the game; it does not play itself. The clock continually displays the position score together with the depth.

**Observe mode** (enabled by ♔e5): the computer is watching the game; it does not play itself. The clock displays the remaining thinking time for both sides.

**Ponder mode** (enabled by ♔f5): the computer is watching the game, it does not play itself. The clock displays the best move for the side to play in rotation with the position score together with the depth.

**Remote mode** (enabled by ♔h5): this mode will allow you to play against someone over internet. The remote player using the webserver whereas the other player using the pieces as normal to enter moves.

## Start a new game

Simply place all pieces to the start position. Adjust your options (e.g. time control, strength, ...) and start playing. If you want to play Black, press the lever on the clock.

## Update picochess

You can either set the „update flag“ inside picochess.ini or you can press the middle button during the startup when „picochess“ is displayed. This will let you choose which version you want to get (you can upgrade or downgrade). You need a working iNet connection for this to work.

## Shutdown

From the start position, replace the white ♔ with the extra white ♚. This will shut down the Raspberry. It takes a few seconds until the blue light turns off. You can also do it with only the two ♚ on the board (on e1,d1) **and** all other pieces removed from the board.

## Resign a game or declare draw

Placing the two kings on opposite centre squares will signal a resignation:

- |             |   |
|-------------|---|
| White wins: | If both kings on white (e4,d5), the result is white wins and the game recorded 1-0  |
| Black wins: | If both kings on black (d4,e5), the result is black wins and the game recorded 0-1  |
| Draw:       | Placing the kings on adjacent centre squares (d4&e4;d5&e5) on the same rank signals a draw and the game recorded 1/2-1/2. The fourth and fifth rank must be clear of other pieces - only kings. |