



A board game for 2 players by **Martijn Althuisen**

INTRODUCTION

Tixel is a two-player abstract game that's a follow-up to Tix. The name comes from the playing pieces, which are basically pixels (squares) with a curved indentation on one of their edges.

The aim of the game is to be the last player able to make a legal move. Chaining moves is invaluable as this temporarily unlocks three additional move types. If a piece that is moved becomes inactive at its end position — i.e., it's sacrificed — a player can take an extra move if he so chooses; aside from placing or moving a piece, he can now remove a piece from the board, activate an inactive piece, or pivot an active piece to reorient its hollow side.

COMPONENTS

- Board (6x6)
- 20 pieces in 2 colors (10 each)
- Carrying case

GAME RULES

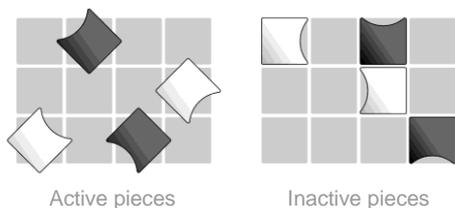
Each player has ten pieces of one color. Initially all the pieces are off the board, forming players' pools.

White always moves first. After the first move, players alternate turns throughout the game.

Pieces

An on-board piece can be either active or inactive. Active pieces are those pivoted by 45 degrees, whereas inactive ones are aligned to the grid.

Only active pieces can be moved (see 'Sliding pieces'). The corners of an active piece stick out to the four orthogonally neighbouring spaces. No other active pieces can rest on those spaces. Therefore, two active pieces can never be orthogonally adjacent to one another.



A player's turn

In his turn a player must either **place** or **slide** a piece.

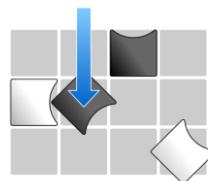
Placing pieces

In a turn, a player is allowed to place a new piece only if he has at least one other **active and slidable** piece on the board **at the beginning of the turn** (excluding placement of the first piece of each of the players, of course).

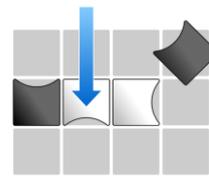
A player takes a piece from his pool and places it on an empty board space.

If all of the spaces orthogonally to the chosen space are empty, the piece has to be placed in the active stance.

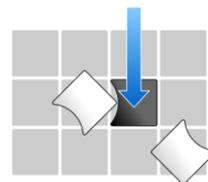
If an orthogonally adjacent space has an inactive piece on it and its hollow side is facing the newly placed piece, the new piece must also be placed in the active stance.



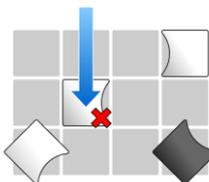
Valid placement



Valid placement



Valid placement



Invalid placement;
A piece placed on this space
has to be made active.

Sliding pieces

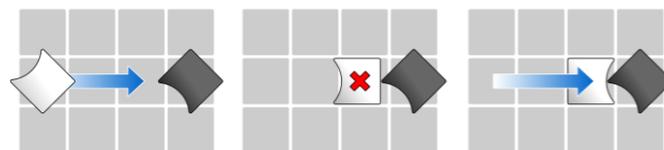
An active piece can be slid any number of empty spaces in a row or column.

The sliding piece is first pivoted to an inactive stance (aligned to the grid in order to fit between neighbouring inactive pieces), then slid to the desired space **and activated if possible**.

A piece may be pivoted **any amount** before sliding.

Any active piece that is adjacent to the slide path gets deactivated by the sliding piece. Adjacent pieces are deactivated by pivoting them in clockwise or anti-clockwise fashion, depending on how the sliding piece passes them.

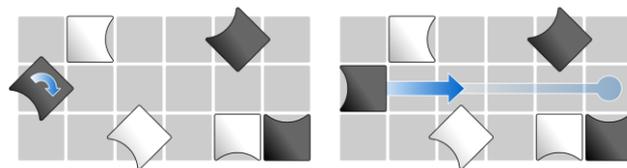
You can only slide to a space in front of another active piece if the hollow side of the sliding piece is facing the active piece.



The white piece wants to slide to the space in front of the black piece.

The piece cannot slide there ...

... unless its hollow side is first pivoted to face the black piece.



Step 1; Temporarily pivot the piece to an inactive stance.

Step 2; Slide the piece towards the desired space ...



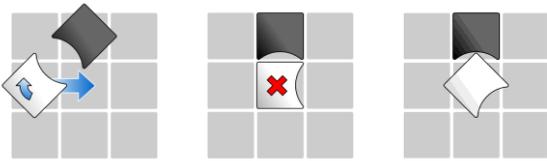
... whilst deactivating all the pieces that are adjacent to the slide path.

Step 3; At the desired space, pivot the piece back to an active stance (if possible).

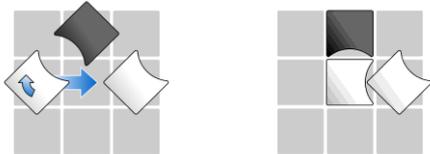
Sacrificing pieces and Bonus moves

When a player **slides a piece** in such a way that it becomes inactive, he gets a bonus move. This is called sacrificing a piece.

If this situation repeats, the player gets another bonus move, and so on, as long as he keeps sacrificing pieces.



The white piece cannot be sacrificed by sliding it next to the black piece. It remains active after the slide.



Now though, the white piece can be sacrificed. It cannot remain active as there now is another active piece on an adjacent space.

The bonus move is **optional**, a player may choose to end his turn instead.

As a bonus move, a player may do one of the following:

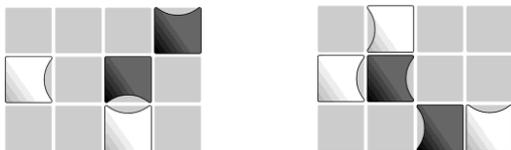
- **Place** a piece (see 'Placing pieces').
- **Slide** a piece (see 'Sliding pieces').
- **Activate** an inactive piece.
- **Pick up** a piece (and put it back in his pool).
- **Pivot** an active piece to reorient its hollow side (the piece remains active).

Activating pieces

A player may pivot one of his inactive pieces to any desired active stance.

The piece to be activated may not be adjacent to other **active** pieces.

If an adjacent space has an inactive piece on it, its hollow side must be facing the piece that the player wants to activate.



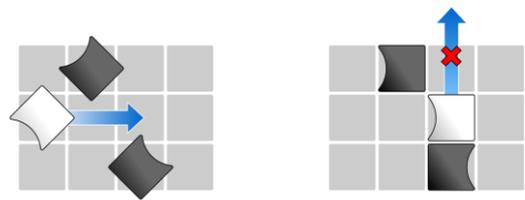
These pieces can be activated.

These can't.

Picking up pieces

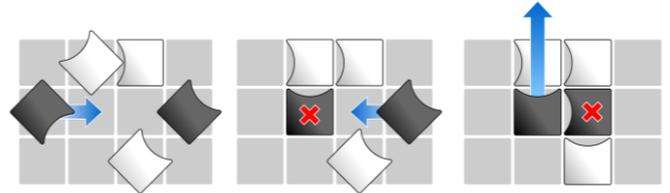
A player may pick up one of his on-board pieces and put it back in his pool.

The piece that was sacrificed to gain the bonus move cannot be picked up straight away.



The white piece is sacrificed by sliding it next to the rightmost black piece.

That same white piece (which was just sacrificed) cannot be picked up in the resulting bonus move.



The black piece on the left side is sacrificed ...

... but it cannot be picked up. Then the black piece on the right side is sacrificed ...

... and now the black piece that was initially sacrificed can be picked up.

Pivoting pieces

A player may pivot one of his active pieces in quarter turn increments so that its hollow side points in a different direction.

A piece that is pivoted must remain active. It may not be pivoted to an inactive stance.



Active pieces must be pivoted in quarter turn increments ...

... so that they remain active.



Pivoting pieces so that they take on an inactive stance ...

... is not allowed.

Ending the game

When a player is unable to make a legal move, he loses. Players can agree to declare a game a draw.

EXPANSION SETS

There are two sets of expansion pieces available for Tixel:

- Tix expansion pieces
- Poka Yoke expansion pieces

TIX EXPANSION PIECES

The Tix expansion set consists of four light and four dark square-shaped pieces (eight in total). For each Tix expansion piece used, **remove** a similarly colored Tixel piece from the players' pools.

Compared to Tixel pieces, Tix expansion pieces have less tactical potential because they cannot be placed (in an inactive orientation) next to an active piece, nor can they be sacrificed by sliding them next to other active pieces that are in the same row or column.

You can also play the original Tix game with 2 sets of this expansion.

POKA YOKE EXPANSION PIECES

The Poka Yoke expansion set consists of two light and two dark pieces (four in total). Like Tixel pieces, each Poka Yoke piece has a curved indentation on one of its edges. In addition, each Poka Yoke piece also has one rounded corner.

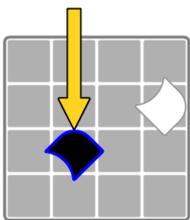
The Poka Yoke expansion adds 'piece promotion' to the Tixel base game. The promotion rule is as follows:

If in a turn a player **picks up one of her own Tixel pieces** (during a bonus move) to end the turn, then **the picked up piece is promoted** to a Poka Yoke piece.

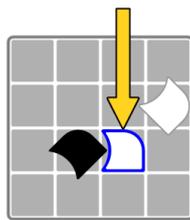
In any single game **at most 2 Tixel pieces per player can be promoted** in this fashion. When promoting a piece, the original Tixel piece is removed from the game and a Poka Yoke piece is added (to the pool of the player that did the pickup).

Placing Poka Yoke pieces

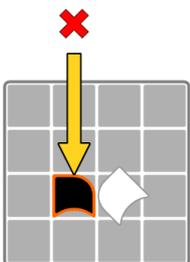
Like Tixel pieces, Poka Yoke pieces may also be placed in an inactive orientation, **but only if it cannot be pivoted to an active orientation** (without pushing aside neighbouring pieces). Poka Yoke pieces may be placed either side up.



Valid placement

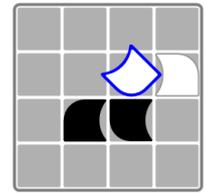
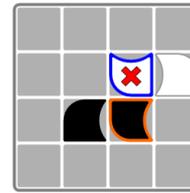
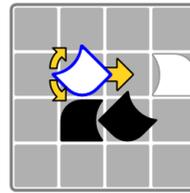


Valid placement;
The piece cannot be made active on this board space.

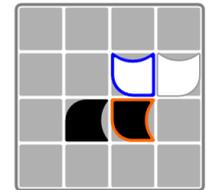
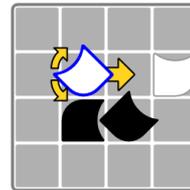


Invalid inactive placement;
This piece has to be made active here (by pivoting it 45 degrees clockwise).

Sacrificing Poka Yoke pieces



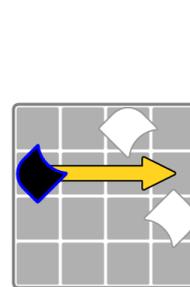
The white piece cannot be sacrificed by sliding it next to the black piece. It remains active after the slide. Whichever direction it pivots before starting the slide, it **has to** be made active again at the end position.



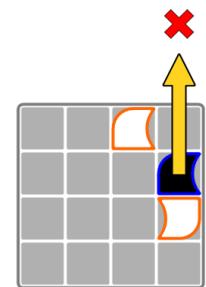
Now though, the white piece can be made inactive. It cannot be made active again at the end position because it is now blocked by the rightmost white piece.

Picking up Poka Yoke pieces

As with Tixel pieces, a Poka Yoke piece that was sacrificed to gain a bonus move cannot be picked up straight away.



The black piece is made inactive by sliding next to the rightmost white piece.



That same black piece (which was just made inactive) cannot be picked up in the resulting bonus move.

Pivoting Poka Yoke pieces

As a bonus move only, a player may pivot one of her active Poka Yoke pieces in quarter turn increments so that its hollow side points in a different direction.

A piece that is pivoted must remain active. It may not be pivoted to an inactive state.

Pushing aside adjacent pieces when pivoting is not allowed.