TGM Rotation

TGM rotation is a game play mechanic used in Tetris The Grand Master and other Arika tetromino games, derived from Sega rotation. It is often referred to as ARS (Arika Rotation System), even though some people believe that this name is misleading.

Games using TGM rotation generally use IRS, fast DAS, lock delay, and firm drop, and tetrominoes start out with the topmost block on the top row (generally row 20). The "ARS" and "ARS2" modes of Tetris The Grand Master Ace use a hybrid of TGM rules and Guideline rules.

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Basic rotation Edit

TGM's basic rotations inherits most of its properties from Sega rotation, which was used in most previous Japanese arcade Tetris games. Some defining characteristics include:

Having 2 (as opposed to 4) rotation states for S, Z, and I tetrominoes.

• Keeping tetrominoes at an even level while rotating to always allow rotation when the tetromino is on a flat surface (except for the I tetromino - see exceptions below).

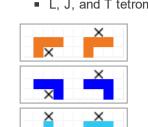


TGM's basic rotations.

Wall kicks Edit

TGM pioneered the use of wall kicks, with simple but effective kick rules. These rules were unchanged until TGM3, remaining constant across TGM, TA, TAP, and Sakura Tetris. Up to 3 locations are tried, in this order, before rotation will fail:

- Basic rotation
- 1 space right of basic rotation
- 1 space left of basic rotation In addition to these rules, there are some extra exceptions where certain wall kicks are not allowed:
- The I tetromino will never kick. ■ L, J, and T tetrominoes will not rotate in the situations illustrated below if the x marked block is occupied.



■ However, L tetrominoes will rotate clockwise and J tetrominoes counterclockwise in the situations illustrated below if both the x marked blocks are occupied.

Kick 1 space right

Kick 2 space right

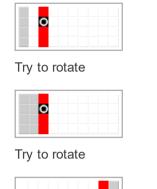
Kick left



New wall kicks in TGM3 Edit

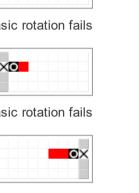
I tetromino's wall kicks Edit

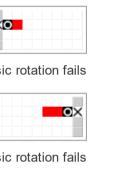
In TGM3, the I tetromino can kick walls. There are 3 different types of wall kicks.

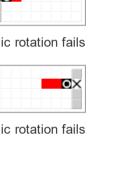


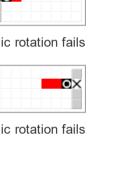
Try to rotate

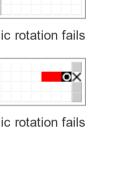
Basic rotation fails Basic rotation fails

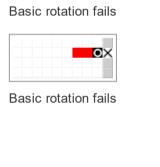


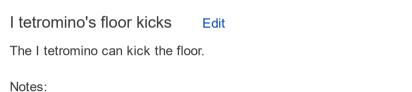


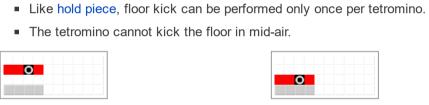




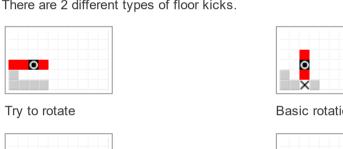


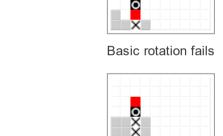


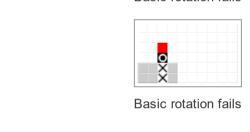






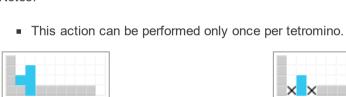




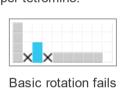


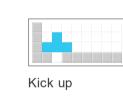


The T tetromino can escape from a hollow.



Try to rotate



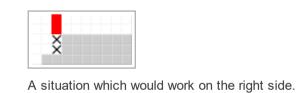


Kick 1 space up

Kick 2 space up

Right side bias Edit

In TGM's rotation system, the Tetrominoes rotate on only one axis resulting in asymmetrical rotations. In this example, the I piece can't rotate on the left side of the stack;



Notice the I has 1 rotation axis;

I piece's rotation axis

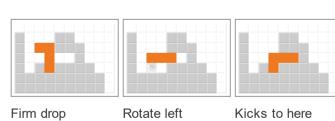
This case does not apply to the T tetromino, as it rotates on its center;

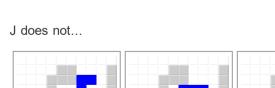
T rotation axis

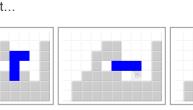
Mihara's conspiracy Edit

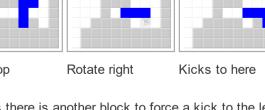
Due to the right side bias with wall kicks, doing this move with a J when there is an empty hole right of the block that the J is caught on will lead to a hole.

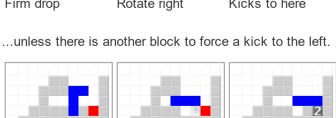
L works:

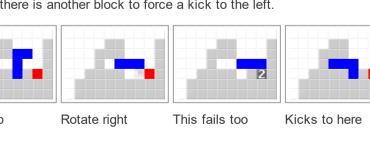












Firm drop It can however be used to the player's advantage by it being used to jump over spikes.

ACE-ARS and ARS2 Edit

ARS was featured as a Xbox live download for ACE. Ace's rotation is a hybrid of SRS and ARS. Ace features guideline colors and allows 128 rotations and 128 movements (Rather than true infinity). ACE features the ability to floor kick with any block, but still retains the wall kick rather than true infinity). ACE features the ability to floor kick with any block, but still retains the wall kick rather than true infinity). ACE features guideline colors and allows 128 rotations. Normal ARS features Sonic Lock (locking) and soft drop (locking).

To-Do Edit

describe ACE's ARS and ARS2 describe "Mihara's conspiracy" (Complete)

mention right bias (Complete)

add more visual aids?

References Edit

KAN's detailed explanation of TGM3's new I and T floorkicks

 TGM rotations, in Japanese Categories: Rotation Systems | Add category