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description: History of the 2GR method for Rubik's Cube.

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import Exhibit from "@site/src/components/Exhibit";

import YouTube from "@site/src/components/YouTube";

import ImageCollage from '@site/src/components/ImageCollage';

# 2GR

<Exhibit

  stickering={{

    solved: "U D F B L R DL DBL",

    orientedWithoutPermutation: "UL UF UR UB FL FR BL BR DF DR DB"

  }}

  cameraLatitude={30}

  cameraLongitude={-20}

/>

## Description

\*\*Proposer:\*\* [John Li](CubingContributors/MethodDevelopers.md#li-john-teoidus)

\*\*Proposed:\*\* 2017

\*\*Steps:\*\*

1. EOPair: Solve the pair at bDL while orienting all edges of the cube. The edges are oriented along the z axis.

2. Extend the pair to a 1x1x3 line at DL while permuting all remaining corners along the z axis. Afterward, the corners are solvable using turns of just the U and R layers.

3. Extend the 1x1x3 block to a 2x2x3 block at dl.

4. Complete the first two layers by solving the 1x2x3 block at dR.

5. Solve the last layer.

[Click here for more step details on the SpeedSolving wiki](https://www.speedsolving.com/wiki/index.php/2GR\_Method)

## Proposal

In April, 2017 John Li proposed 2GR [1, 2].

![](img/2GR/Proposal1.png)

![](img/2GR/Proposal2.png)

![](img/2GR/Proposal3.png)

2GR was eventually moved to a new site [3].

![](img/2GR/NewSite.png)

# References

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| [1] | J. Li, "2GR Method Text Tutorial," Reddit, 7 April 2017. [Online]. Available: https://www.reddit.com/r/Cubers/comments/63y9sy/2gr\_method\_text\_tutorial/. |
| [2] | J. Li, "2GR (2-generator reduction)," [Online]. Available: https://web.archive.org/web/20170417185044/http://teoidus.github.io/dump/2GR/2GR.html. |
| [3] | J. Li, "2GR (2-generator reduction)," [Online]. Available: https://johnm.li/2GR/2GR.html. |