Gigaminx – 2020.05.26 solve

Steps:

- Layer by layer method for all but top 2 layers
- Solved edges
- 3 corners completed; difficulty with last two
  - Global corners spread throughout gigaminx
- Decided to switch to Reduction method:
  - All corners corrected except top 2 layers
- Reduction method ….

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Layer-by-layer method notes:

Last Layer

Goal: Reduce edge pieces: use algorithm below to flip edge pieces.
Then use same algo to bring reduced edge blocks to top layer.

Position: hold cube with edge piece (on top face) to be flipped in front:

F R U R' U' F'

Notes:

- Will also flip BR edge. If target edge will cause completed edge block in BR to flip, turn cube to find alternative way to flip…
- If that does not work, use Sune algorithm to shuffle pieces around

Last edge block:

Need to bring up completed edge block from down below.
OK to disrupt centers.

Build corner blocks:

1. Build 2-piece bars; use
2. Use **R' D' R D** to change orientation of pieces/bars step-by-step
3. Build top sheet of 4 pieces from bars
4. Build bottom base of 3 pieces
5. Put two blocks together

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Reduction method notes

- All edges solved
- Many corners in correct positions but wrong orientation

Goal: try to solve 3 corners on the green side that are in correct location but incorrectly oriented:
Moves:

- Corner orientation (CubeSkills)
  R' U' R U' R' U2 R

R' U' R U' R' U2 R

Result:
- 3 corners reoriented with green side up, but 3 edges misaligned

Moves:
- Edge permutation (CubeSkills)

(R U R' U) (R' U' R2 U') (R' U R' U) R U2'

Result:
- edges correctly permuted
- 4 corners need to be permuted

Moves:
- Corner permutation from '1 corner solved' set (Juan)
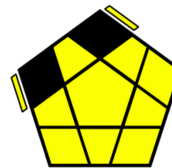
R L' U² (R' U' R U R' U' R U R' U' R U') R' L

Result:
- Success!

Goal: try to solve 2 corners on the red side that are in correct location but incorrectly oriented:
Moves:
- Corner orientation (CubeSkills)

F (R U2 R' U' R U' R') F'

Result:
- 3 edges misaligned

Moves:
- Edge permutation (CubeSkills)

(R U R' U) (R' U' R2 U') (R' U R' U) R U2'

Result:
- edges correctly permuted
- 4 corners need to be permuted

Moves:
- Corner permutation from '1 corner solved' set (Juan Pablo Huanqui)
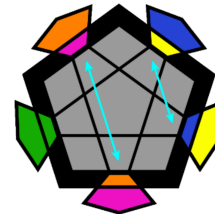
R L' U² (R' U' R U R' U' R U R' U' R U') R' L

Result:
- Success!

Orange face

Did corner orientation algorithm which resulted in 4 misaligned edges.

- The 4 misaligned edges did not match any pattern
- Used this algorithm which yielded 3 misaligned edges
- Then 3-edge algorithm worked fine…

(L R U2) (L' U R') (L U' R U2) (L' U2 R')

Grey face

Used above algorithms…
Solved!

Conclusions:
- Edge & corner orientation & permutation algorithms work perfectly
- Can creatively use algorithms when state does not match existing patterns

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Sources

LM Cubing
- allabouttwistypuzzles.blogspot.com/2017/10/the-ai-method-gigaminx-tutorial.html
- youtube.com/watch?v=Jo3fHuGsaHE

Bearded Cubing
- youtube.com/watch?v=MNBMm8BnHtQ

Notes (from videos)

Part 3

7 min, top layer corners

16 min, 3 corner blocks completed
                              Algo to shuffle remaining 2