**Rubik’s Cube Solver Progress Review**

In terms of a functional decomposition, the robot is intended to be capable of the following:

1. Interpret a cube’s current state (tile colors and placements)
2. Manipulate each face
3. Execute a sequence of moves
4. Solve the Rubik’s cube

These functions can be further broken down into sub-functions.

1. **Interpreting the cube’s state**
2. Capture images of each cube face
3. Crop and rotate images
4. Reduce images to separate images of the tiles
5. Classify tiles and assign classifications onto a 2D-grid

In general, this function has been completed. The single outstanding issue is to implement a back-up interface for correcting mistakes between RED and ORANGE tiles.

1. **Manipulating each face**
2. Claspers grip center-tiles of perpendicular faces
3. Claspers can rotate faces symmetrically
4. Claspers grip cube without letting it droop
5. Claspers operate in tandem without interference

This function is the farthest from completion. The lack of progress is because sub-function (i) is a pre-requisite to testing the other functions. With the latest batch of parts, this might be resolved.

1. **Execute a sequence of moves**
2. Parse individual moves
3. Determine and execute turns needed to reach faces
4. Map cw and ccw orientations based on stepper axes
5. Maneuver steppers in re-orientation phase and face manipulation phase without interference

In general, this function has been completed but requires testing. Requires function (b) to be completed before testing.

1. **Solve the Rubik’s Cube**

This algorithm is completed.