

Task 4
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For the new cones I would implement it so that every block has 4 of the following attributes: Shape, Color, Size and X coordinate. The shape of a block could be either a cube or a cone. The X coordinate will determine the block is on a 2 dimensional plane, this is how I would handle the left and the right positions.

size(b1, small)
shape(b1, cone)
color(b1, red)
xpos(b1, 0)

The new plane would start at a position of 0 and would go up to ((the number of blocks we have) - 1). This will be behind the scenes but this is how the left and right functions will figure out positions, and this will allow us to not just find adjacent blocks we can see all the blocks to the left or right easily.

We will write stuff like “place the large green cone block in the 2 spot”
[This is in case we want to unstack every single block].

All blocks will have an X coordinate, however you should only need to type it when placing a block on the table.

Since we are going from 0 - the number of blocks, finding out if a block is to the left or right of a block will be simple because if the number is smaller it is to the left and if the number is larger than the block is to the right.

An example of the new grammar would be “pickup the large red **cone** block” and regular cube blocks would “pickup the large red **cube** block”.

Another thing that must be added to the code is a QP, a question phrase. A QP will contain the word “Can the” and the NP. A question phrase will go about answering a question by actually doing the movement, if it fails it writes ‘no’, if it moves it it will write ‘yes’ and then move the blocks back to the original positions.

I would add two new rules when it comes to stacking blocks on top of other blocks, larger blocks can't be placed on smaller blocks and nothing can be placed on top of a cone.

