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ACTIVITY 2

Step 1:

1. Gather all materials listed the section “list of parts”
2. Gather the hardware listed in “hardware”
3. Screw part J onto part A using two bolts labeled (4)
4. Screw part H in the middle of part A using bolt 4
5. Screw part I onto the bottom of part A using bolt 4
6. Repeat steps 3-5 with part B to bookend parts J, H, and I
7. Set part J on top of parts A, B, and J
8. Attach part G to the top of parts J, A, and B using 5 bolts labeled (2)
9. This macro-part will now be referenced as the “left headboard”

Step 2:

1. Screw the second part J onto the top of part c using 2 bolts labeled (4)
2. Repeat this process with part D on the other side of part J
3. Set the second part G on top of parts C, D, and J
4. Attach part G to the top of parts C, D, and J using 5 bolts labeled (2)
5. This macro-part will now be referenced as the “right headboard”

Step 3:

1. Set 3 part Ns equally spaced on the ground with the shortest face down
2. Set part N with the longest ridge on the ground, leaning against part N
3. Screw part P into all 3 part Ns using two bolt 2s each
4. Repeat this process with part Q on the next lowest set of holes
5. Repeat this process with part R on the highest set of holes
6. This macro-part will now be referenced as the “back side”
7. Repeat step 1-3 with part K instead of part P
8. Repeat step 4 with part L instead of part Q
9. Repeat step 5 with part M instead of part R
10. This new macro-part will now be referenced as the “front side”

Step 4:

1. Lay down the right headboard frame supine on the ground
2. Put one shelf-part T upright and align it with the top rivet hole of the headboard frame (found along the side poles)
3. On the hole of the shelf-part T (found on the bottom diagonals), insert, in order, part 5 and part 6, and insert part 4 into the hole (the head should be above parts 5 and 6)
4. Use part 9 to screw in part 4 (which will wedge parts 5 and 6 in-between the head of part 4 and the diagonal of shelf-part T)
5. Repeat for the other side’s bottom diagonal

6. Repeat steps 2-5 for the next hole down along the pole of the headboard frame, but substitute shelf-part U for part T
7. Repeat steps 2-5 for the next two holes down

Step 5:

1. Insert Part E onto the top corner of all the boards such that the grooves are a fit for the corners
2. On the hole of the shelf-parts (found on the top diagonal), insert, in order, part 5 and part 6, and insert part 4 into the hole (the head should be above parts 5 and 6)
3. Use part 9 to screw in part 4 (which will wedge parts 5 and 6 in-between the head of part 4 and the diagonal of shelf-parts)
4. Repeat steps 2-3 for each of the parts so that Part E is anchored
5. Repeat steps 2-4 for the other side, substituting Part F for Part E

Step 6:

1. The setup needful 2 people
2. Reorient the part made in steps 4 and 5 such that it is right-side-up
3. Insert the part made in step 3 such that the positive part 1 meets up with the negative part 1 of the part made in steps 4-5
4. Insert the other headboard such that the negative part 1 meets up with the positive part of the part made in step 3
5. Insert part V into the bottom of the structure, such that the ends are aligned with the two holes found along the bottom of the back poles
6. Insert set up bolts into the outside of the back poles' holes such that they, when screwed in, will also enter the holes at the ends of part V
7. Repeat steps 5-6 for part S, except insert part S such that it is level to the middle outside beam (found along the outside of the headboards)

Step 7:

1. Screw in the M6x0.5" bolts (labeled as 1 in the hardware section) into the linked metal bowls at the top side of the product.
2. Use the allen kye to screw in the bolts M6x2.7" (labeled as 4 in the hardware section)into the side of the product without the entry point.
3. Repeat the 2 previous steps for all four corners of the product.

Step 8:

1. Screw in the 4x0.8" screw(labeled as 8 in the hardware section) into the three metal bowl positions on the leg.
2. Use the allen kye to screw in the M6x1"(labeled as 2 in the hardware section) for the front and the back leg.

Step 9:

1. Use the allen kye to screw in hardware #3 along with hardware #6 and #5 into the lower part of the desk.
2. Repeat the previous step for both sides of the desk.

Step 10:

1. Insert center rail (Part Y) into the center of the bed-frame.

2. Check that Part Y is parallel to the long wooden piece of the bedframe and perpendicular to the short wooden piece of the bed-frame.

Step 11:

1. Use 6 Screw 7's to secure the bed slats to the bedframe (2 screws/bed slat).

Variables:

- Num_workers: the total number of people working on the project
- Num_parts_left: the total number of parts not used in the project yet
- Parts: tuple of parts (e.g. ('A', 'B', etc.)) that the program can loop through
- Hardware: tuple of hardware (e.g. ('1', '2', etc.)) that the program can loop through
- Current_step: what step # the program is on
- Current_substep: what # substep the program is on
- Level_of_stoke: how hyped the workers are to be at their job, included as a modifier for the estimated time to complete the project
- Total_parts: the total number of parts expected to be used in the program
- Total_hardware: Number of hardware parts to be used in the program

ACTIVITY 3

Activity #3 Basic function (TODO: string formatting and stuff)

1. lerp = lambda d1, d2, t1, t2, t: (d2-d1)/(t2-t1)*(t-t1)+d1
   print(f'{lerp(2025, 23025, 10, 55, 25)} miles past Houston')
2. from numpy import pi
   lerp = lambda d1, d2, t1, t2, t: (d2-d1)/(t2-t1)*(t-t1)+d1
   clerp = lambda d1, d2, t1, t2, t, r: lerp(d1, d2, t1, t2, t)%(2*pi*r)
   print(f'{clerp(2025, 23025, 10, 55, 300, 6745)} miles past Houston')