Video link:
https://drive.google.com/file/d/1TJvlK7_CDH2QrOnPKGb_Gta7DHRoSBHL/view?usp=sharing

Step No.	Process Description	Symbol	Distance (m)	Time (sec)	Remarks
1	Start recording	○ Operation	0	10	Initial setup
2	Prepare materials	○ Operation	0	30	Gather and arrange
3	Set paper stack location	○ Operation	0	10	Fixed spot on table
4	Identify and mark inspection area (2m away)	○ Operation	2.0	25	Marking location
5	Draw top-view layout with measurements	○ Operation	0	60	With ruler/tape
6	Pick and fold 5 papers (first phase)	○ Operation	0.5	180	Repetitive folding
7	Pick and complete 5 airplanes	○ Operation	0.5	130	Final folds
8	Walk to inspection area with 5 planes	→ Transport	2.0	15	Single trip
9	Inspect 5 planes	□ Inspection	0	60	One at a time
10	Stack in inspection zone	○ Operation	0.1	10	Neat arrangement
11	End process	○ Operation	0	0	Done

Total Time: 520 seconds
Total Distance: ~5.1 meters (approximate cumulative walking)

🕒 **ACTIVITY CHART (Worker 1 – Approximate Breakdown)**

Video link:
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Time Block	Action	Activity Type
0–10 sec	Start recording	Operation
11–40 sec	Gather & prepare materials	Operation
41–50 sec	Set stack location	Operation
51–75 sec	Mark inspection area	Operation
76–135 sec	Draw top-view layout	Operation
136–315 sec	Fold 5 papers (Step 1)	Operation
316–445 sec	Final folds to airplanes	Operation
446–460 sec	Move to inspection area	Transport
461–520 sec	Inspect and stack	Inspection & Operation

Color Legend:

- Blue: Operation
- Green: Transport
- Yellow: Inspection

🔍 UPDATED DATA ANALYSIS

Observations Based on Actual Performance:

- Folding took **315 seconds** (60% of total time) — a major activity block.
- Setup and layout consumed ~135 seconds — reasonable for first-time execution.
- Transport time was minimal (15 sec), but **2 meters added walking effort**.

💡 RECOMMENDATION (Proposed Method Revisited)

Modified Goals:

- Aim to reduce **total time from 520 sec to ~400 sec**

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- Minimize unnecessary walking and repeated handling

Key Changes:

- Place inspection area within **0.5 meters** (instead of 2.0 meters)
- Inspect and stack immediately after each plane is folded
- Use pre-printed guides on the table to speed up folds

Estimated Time Savings: **100–120 seconds**

🔚 CONCLUSION (Updated for Real Execution)

1. Insights from Charts

Flow and activity charts help **uncover bottlenecks** (folding time), highlight inefficiencies (walking), and show where simplification is possible.

2. Skills Learned

- Structured time-motion recording
- Layout planning
- Task sequencing for efficiency

3. Direct Observation vs. Assumptions

Real recording showed folding took much longer than theoretical estimates — an example of why **direct observation** is more reliable than assumptions.

4. Chart Focus Comparison

- **Flow Process Chart:** Linear progression; ideal for time & distance analysis
- **Activity Chart:** Focuses on *what the worker is doing at every moment*

5. Effect of Proposed Method

Would likely:

- Cut time by 20–25%
- Reduce walking by ~75%
- Make task smoother and less tiring

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6. Process Improvements Achieved?

Yes — if applied:

- **Faster transitions** between steps
- Less clutter and travel
- Measurable productivity gain