MAKING OHIO
OHIO MANUFACTURING

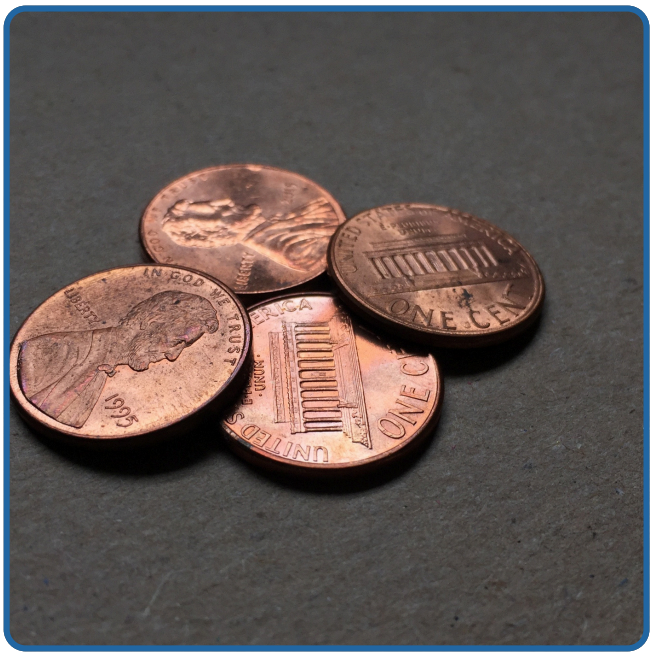
Group Activity

Activity Name: Penny Flipping Flow

Purpose:

This exercise demonstrates how batch size impacts flow, lead time, and efficiency. By moving from large batches to smaller batches, and eventually to one-piece flow, participants experience firsthand how teamwork, material flow and continuous improvement improve performance and reduce waste.

Time: 15 - 25 minutes



Materials Needed:

- Pennies (at least 30–50, enough for multiple rounds)
- Stopwatch or timer
- Flat workspace (tables or desks)

Directions:

1. Round 1 – Large Batch:
    - Divide participants into a line of roles.
    - Give the first person a batch of 10 pennies.
    - Each person must flip all 10 pennies before passing them on.
    - Time the round and record results.
2. Round 2 – Smaller Batch:
    - Repeat the process, but reduce the batch size to 5 pennies.
    - Record the time and results again.
3. Round 3 – One-Piece Flow:
    - Repeat with a batch size of 1 penny (true one-piece flow).
    - Time and record results.
4. Discussion:
    - Compare how batch size impacted flow, lead time, and overall efficiency.
    - Reinforce the principle that smaller batch sizes reduce waiting, improve flow, and get value to the customer faster.

Discuss:

- What wastes did you notice when using larger batch sizes?
- How many people were actively involved?
- How did smaller batch sizes change teamwork and flow?
- How did teamwork change when batch sizes were reduced?
- How does one-piece flow connect to lean thinking in real-world manufacturing?
- How can we apply this lesson to our own processes?

Activity Credits:

Special thank you to The M.K. Morse Company and Stark County Manufacturing Workforce Development Partnership for providing MakingOhio with this activity.