

# Toothbrush Tube Packaging

*This is a very basic assembly and packaging task.*



## Materials

- 48 tube bottoms (A)
- 48 tube tops (B)
- 2 red storage bins with dividers
- 1 jig



## Setup

Place the red storage bin with the tube tops and bottoms on the table to the left. Place the other red bin to the right. Divide this bin into 3 sections using 2 dividers as shown.

## Procedure

- Remove a tube top with the left hand.
- Take one tube bottom of the same color with the right hand.
- Insert the tube bottom into the tube top.
- Place the assembled tube into the storage bin. Tubes of the same color are placed in the same compartment.
- Repeat all the previous steps for the remaining tubes.

## The Jig

The jig is helpful for workers to complete the task with the use of one hand.

## Variations

Task variations are possible by changing the significance of the color variable. For example, make color irrelevant so the worker assembles the tubes regardless of color. Or give a worker tube parts of one color, but mix in a few of a different color. These odd pairs are then considered rejects.

## Norms:

Per unit – 5 seconds  
Per task (482 units) – 4 minutes

## Quality Criteria

The tube tops and bottoms of each assembled toothbrush tube must be the same color. Tubes must be sorted by color in the divided red storage bin.



# Toothbrush Tube Disassembly

## Setup

Arrange the materials as in the assembly task.

## Procedure

- Take one toothbrush tube from the red storage bin.
- Pull the tube apart and place the tube top in the left side of the other divided storage bin.
- Place the tube bottom in the right side of the divided storage bin.
- Repeat for all the remaining units.

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## Norms:

Per unit – 2.5 seconds  
Per task (48 units) – 2 minutes

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## Quality Criteria

Each unit must be completely disassembled and the tops and bottoms placed in the appropriate bin compartments.