

## Tasks

- 1** Move to take top 1
- 2** Take top 1
- 3** Move top to fixture 1
- 4** Put top in fixture 2
- 5** Move to button 1
- 6** Take button 1
- 7** Move button to top 1
- 8** Mount button on top 5
- 9** Angle top-button 1
- 10** Move to support top-button 1
- 11** Lift top-button, hold top-button 1
- 12** Lift top-button, support 1
- 13** Turn top-button 4
- 14** Move to take ring 2
- 15** Take ring 2
- 16** Move ring to top-button 1
- 17** Mount ring on top-button 52
- 18** Move to fixate top-button 3
- 19** Fixate top-button 3
- 20** Move top-button to start fixture 3
- 21** Put top-button in start fixture 1
- 22** Move to change tool 6
- 23** Change to base-grabber tool 12
- 24** Move to take top-button 1
- 25** Take top-button 1
- 26** Move to take base 2
- 27** Take base 1
- 28** Move base to fixture 1
- 29** Put base in fixture 2

- 30** Move to take square 1
- 31** Take square 1
- 32** Move square to base 1
- 33** Mount square in base 3
- 34** Take base-square 0
- 35** Move base-square to table 1
- 36** Move top-button to base-square 1
- 37** Put top button on base-square 3

## Sets of tasks needing the same machine

- 1** Move to take top
  - 2** Take top
  - 3** Move top to fixture
  - 4** Put top in fixture
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- 5** Move to button
  - 6** Take button
  - 7** Move button to top
  - 8** Mount button on top
  - 9** Angle top-button
  - 11** Lift top-button, hold top-button
  - 13** Turn top-button
  - 18** Move to fixate top-button
  - 19** Fixate top-button
  - 20** Move top-button to start fixture
  - 21** Put top-button in start fixture
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- 10** Move to support top-button 1
  - 12** Lift top-button, support 1
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- 14** Move to take ring

- 15 Take ring
- 16 Move ring to top-button
- 17 Mount ring on top-button

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- 22 Move to change tool
- 23 Change to base-grabber tool

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- 24 Move to take top-button
- 25 Take top-button
- 36 Move top-button to base-square
- 37 Put top button on base-square

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- 23 Change to base-grabber tool
- 26 Move to take base
- 27 Take base
- 28 Move base to fixture
- 29 Put base in fixture

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- 23 Change to base-grabber tool
- 30 Move to take square
- 31 Take square
- 32 Move square to base
- 33 Mount square in base
- 34 Take base-square
- 35 Move base-square to table

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## Sets of tasks that need to execute simultaneously

- 11 Lift top-button, hold top-button
  - 12 Lift top-button, support
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