

## LIGHT FIXTURE ASSEMBLY SIMULATION WORKSHEET: TRACKING SHEET

*Fill out using the steps described below*

	Eight-Piece Batch Simulation	Four-Piece Batch Simulation	One-Piece Batch Simulation
Number of Completed Fixtures			
Number of Fixtures in Progress			
Cash Flow +\$150 for Completed – \$50 for WIP			

At the end of each round of the simulation you should record the results for your group.

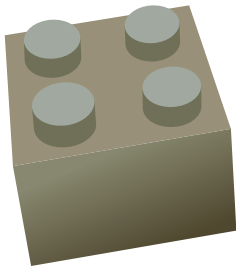
- Note the number of completed batches
- Note the number of fixtures completed
  - Count each fixture completed within the batches individually
- Note the number of fixtures in progress
  - Count each fixture in progress within the batches individually
- Calculate the cash flow for the project
  - For each completed fixture, give your group \$150
  - For each fixture in progress, subtract \$50 from your total

## LIGHT FIXTURE ASSEMBLY SIMULATION WORKSHEET: APPRENTICE — ASSEMBLY

As the apprentice, your role is to begin the light fixture assembly operation, knowing your performance will be judged on how many assemblies you complete.

For each simulation, follow these steps:

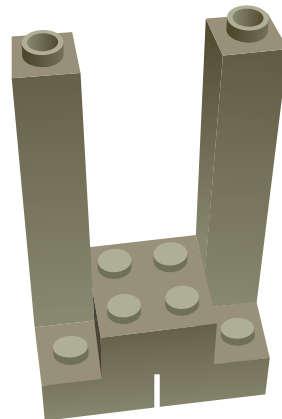
1. Using three white square and two white rectangular Legos®, assemble the fixtures as shown below.
2. Note the batch number on the fixture.
  - Repeat the process until the batch size is reached.
  - Note: Each batch will contain the number of fixtures equal to the batch size you are instructed to use. So, for an eight-piece batch simulation, there are eight light fixtures in Batch #1 and in Batch #2 and so on.
3. Place all fixtures in the batch together and pass on to the queue for the journeyworker responsible for installing.
4. Repeat steps one through three, with a new batch number.



White Square Lego®



White Rectangular Lego®



Assembly Product

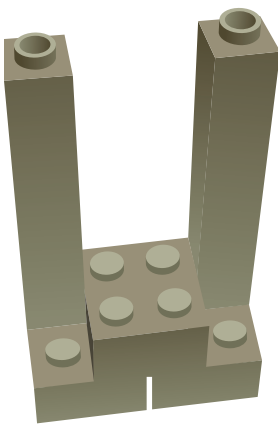
## LIGHT FIXTURE ASSEMBLY SIMULATION WORKSHEET: JOURNEYWORKER — INSTALLATION

As the first journeyworker, your role is to complete the installation operation of the light fixture production process, knowing your performance will be judged on how many installed assemblies you complete.

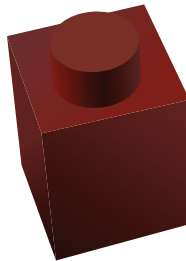
Your work will start when you receive Batch #1. The fixtures will already be comprised of five white pieces.

For each simulation, follow these steps:

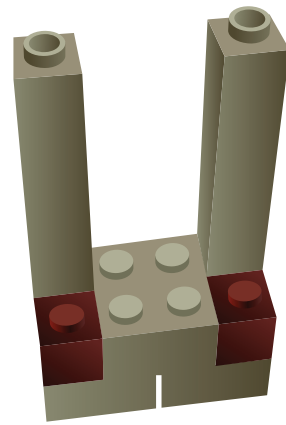
1. Remove all fixtures in the batch from the queue.
2. Take a single fixture
3. Add two red Legos® to the fixture as noted below.
  - Repeat until the new Legos® have been added to all fixtures in the batch.
4. Place all fixtures in the batch together and pass on to the queue for the journeyworker responsible for wiring and clipping.
5. Repeat steps one through five for each batch.



**Assembly Product**



**Red Lego®**



**Installation Product**

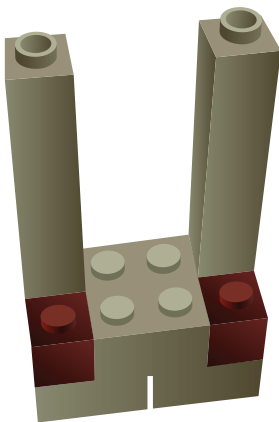
## LIGHT FIXTURE ASSEMBLY SIMULATION WORKSHEET: JOURNEYWORKER — WIRE AND CLIP

As the second journeyworker, your role is to complete the wire-and-clip operation of the light fixture production process, knowing your performance will be judged on how many wire-and-clip assemblies you complete.

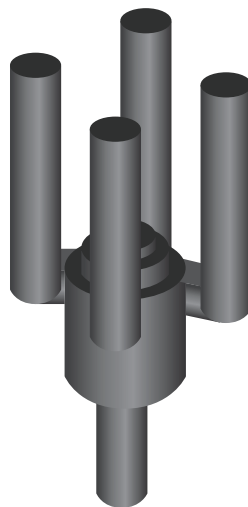
Your work will start when you receive Batch #1. The fixture will be comprised of five white pieces and two red pieces.

For each simulation, follow these steps:

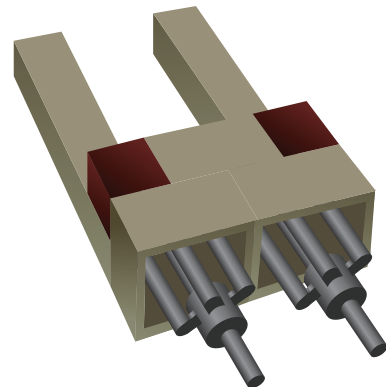
1. Remove all fixtures in the batch from the queue.
2. Take a single fixture
3. Add two black Legos® to the fixture as noted below.
  - Repeat until the new Legos® have been added to all fixtures in the batch.
4. Place all fixtures in the batch together and pass on to the queue for the journeyworker responsible for lamp and finish
5. Repeat steps one through four for each batch.



**Installation Product**



**Black Lego®**



**Wire and Clip Product**

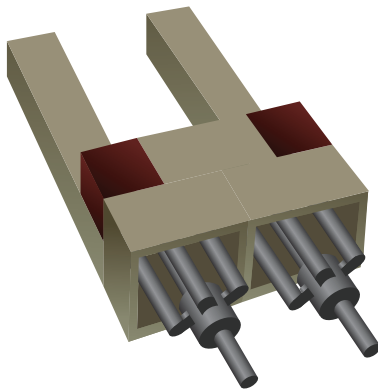
## LIGHT FIXTURE ASSEMBLY SIMULATION WORKSHEET: JOURNEYWORKER — LAMP AND FINISH

As the third journeyworker, your role is to complete the lamp and finish operation of the light fixture production process, knowing your performance will be judged on how many lamp and finish assemblies you complete.

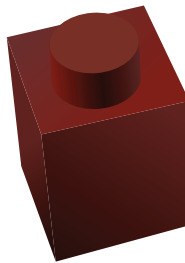
Your work will start when you receive Batch #1. The fixture will be comprised of five white pieces, two red pieces, and two black pieces.

For each simulation, follow these steps:

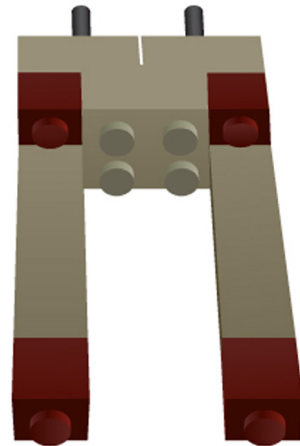
1. Remove all fixtures in the batch from the queue.
2. Take a single fixture
3. Add four red Legos® to the fixture as noted below.
  - Repeat until the new blocks have been added to all fixtures in the batch.
4. Place all fixtures in the batch together, the product is complete.



**Wire and Clip Product**



**Red Lego®**



**Finished Product**