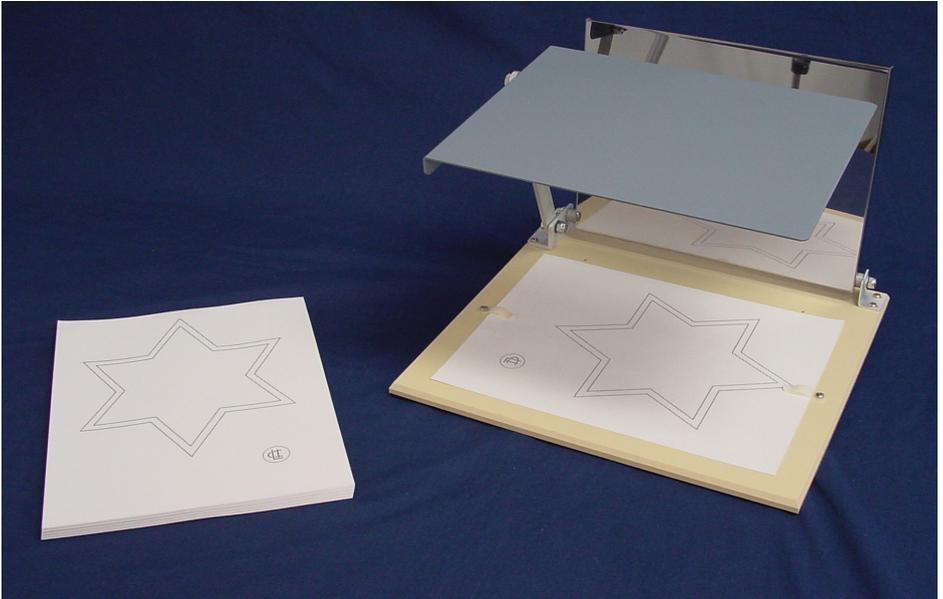


# **Mirror Tracer**

## **User Instructions**



P.O. Box 5729  
Lafayette, IN 47903 USA  
Tel: 765.423.1505 • 800.428.7545  
Fax: 765.423.4111  
[info@lafayetteinstrument.com](mailto:info@lafayetteinstrument.com)  
[www.lafayetteinstrument.com](http://www.lafayetteinstrument.com)

## Description

The 31010 Mirror Tracing Apparatus is a standard laboratory instrument, which can be used in a variety of experimental studies. The subject's task is to trace a pattern, which is attached to the board from visual cues that are reversed and inverted in a mirror. A metal shield prevents the subject from looking directly at his hand or the pattern, yet it does not interfere with his hand and arm movements.

One of the common patterns which has been used is a six-pointed star made up of two sets of parallel lines approximately  $\frac{1}{4}$ " apart. The subject then has to trace between the lines with a pencil without touching the sides of the star. Errors are tallied by counting the number of times the subject touches or crosses over one of the sides. This task is generally quite difficult at first, but shows very rapid learning; thus, it is an ideal device to demonstrate learning curves.

Bilateral transfer of training can also be shown by giving the subject a test period consisting of a few pre-test trials with the non-preferred hand, a large number of practice trials with his preferred hand, and a final test period of one or two trials with the non-preferred hand. A marked improvement in performance of the non-preferred hand is usually obtained due to the transfer of practice from the preferred hand. Following is a sample experiment for your convenience.

## Purpose

The purpose of this test is to study the effects of bilateral transfer of learning in a mirror tracing motor skill. The tracing of an outline seen in a mirror has been selected to study the acquisition of a motor skill to equate all subjects with respect to unknown and, therefore, uncontrolled effects of training prior to the experiment.

## Apparatus

- 31010: Lafayette's Mirror Tracer
- 31100: Mirror Tracing Stars
- 15643: Digital Stop Watch (optional)

## Procedure

Each student will serve alternately as both E and S. The task is to draw a continuous line within the guidelines of the star as quickly as possible while using only those visual cues obtained by looking at the reflection of the star and pencil in the mirror. The experimenter should insure that the subject uses the correct hand (either preferred [P] or non-preferred [N]), record the number of errors (the number of times S crosses the guide lines), and the amount of time required to complete each trial. The following trials should be administered with a one-minute rest period between each trial:

- three pre-test trials with the non-preferred hand,
- fourteen training trials with the preferred hand, and
- three test trials with the non-preferred hand.

Following these twenty trials, the E and S should switch roles.

## Results

Compute the total number of errors for each trial. An error consists of each time the S's pencil touches a guideline. If S crosses the line, he must re-enter at the same point; otherwise, a re-entry counts as a second error. Graph the time required for each trial carefully labeling each group of trials. Discuss the evidence of transfer.

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# Terms and Conditions

## LIC Worldwide Headquarters

Toll-Free: (800) 428-7545 (USA only)

Phone: (765) 423-1505

Fax: (765) 423-4111

Email: [sales@lafayetteinstrument.com](mailto:sales@lafayetteinstrument.com)

[export@lafayetteinstrument.com](http://export@lafayetteinstrument.com) (Outside the USA)

## Mailing Address:

Lafayette Instrument Company

PO Box 5729

Lafayette, IN 47903, USA

## Lafayette Instrument Europe:

Phone: +44 1509 817700

Fax: +44 1509 817701

Email: [esuals@lafayetteinstrument.com](mailto:esuals@lafayetteinstrument.com)

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Lafayette, IN 47904, USA.

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3. This warranty does not cover damage to components due to improper installation by the customer.
4. Consumable and/or expendable items, including but not limited to electrodes, lights, batteries, fuses, O-rings, gaskets, and tubing, are excluded from warranty.
5. Failure by the customer to perform normal and reasonable maintenance on instruments will void warranty claims.
6. If the original invoice for the instrument is issued to a company that is not the company of the end user, and not an authorized Lafayette Instrument Company distributor, then all requests for warranty must be processed through the company that sold the product to the end user, and not directly to Lafayette Instrument Company.

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