FearCond
A Whisker client

by Rudolf Cardinal

www.whiskercontrol.com

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Foreword

WARNING

Whisker is a system designed for research purposes only, and should never be used to control medical apparatus or other devices that could endanger human life.

DISCLAIMER

The authors, copyright holders, and distributors disclaim all responsibility for any adverse effects that may occur as a result of a user disregarding the above warning.
1 FearCond

1.1 About FearCond

Purpose

Fear conditioning (shock US).

Software requirements

Requires Whisker v2.0 or greater.

Data storage

Text-based output to disk.

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1.2 Required devices

The program requires to claim devices in groups named box0, box1, box2... with device names as follows:

CSLIGHT     // output
HOUSELIGHT  // output
CLICKER     // output
TONE        // output
SHOCK       // dangerous output

Please ensure that these devices are available and listed in the device definition file in use by the server.
1.3 Using the task

When you run the task, you will see the following warning. Read and acknowledge it:

The main screen looks as follows:

You must connect to a Whisker server, claim an operant chamber (box), and set up the parameters for your task. Once that's done, the traffic lights will turn amber. When you are ready, press Start to begin the task.
1.4 Parameters

The parameters dialogue box looks like this:

[Image of the parameters dialogue box]

- **Parameters**
  - **Stimuli and lighting**
    - CS duration (s): 10
    - CS comprises: Tone, Light, Clicker
    - US (shock) duration (s): 0.5
  - **Task**
    - Lead-in time before other aspects of task begin (min): 0
    - PAIRED TRAINING (CS -> US; CS terminates in US)
      - Number of presentations: 3
      - Time before/between presentations (min): from 2 to 3
    - UNPAIRED TRAINING (CS // US; pseudorandom; distributed through total task time)
      - Number of presentations: 10
      - US can occur at any time except during CS, or following it within: 30
    - CONTEXT-ONLY TRAINING (US)
      - Number of shocks: 6
      - Time before/between presentations (min): from 0.1 to 0.3
    - CS TEST (CS, usually a prolonged version)
      - Time before/between presentations (min): from 0.1 to 0.3
      - CS duration (min): 0.1
      - Number of presentations: 1
    - CONTEXT TEST (no stimuli)
      - Total task time (min) [specify 0 to finish as soon as presentations are complete]: 0.1
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