

90 min chamber habituation

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\--OUTPUTS:
^ACTIVE=1      \SET TO 1 TO EXTEND RETRACTABLE LEVER
^feeder=2
^PUMP=8
^CUELIGHT=4
^SPEAKER=6
^HOUSELIGHT=5

^LEVER = 1
^INACTIVE = 2
^FOODCUP = 3
    
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\ List Data Variables Here

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\A is the active response counter in the session
\B is the number of inactive presses in the session
\C is the number of food cup responses in the session
\D is the number of rewards
\E is the number of responses in the first 5 minutes of the session
\F is the number of inactive lever presses during the first five minutes
\G is the number of food cup responses in the first 5 minutes of the session
    
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\H is the timer
\J is the number of free rewards
\K is the session period (5 min) counter
\T is the counter for times (in case we decide to go state based, which I doubt)
\U is the time a reward will be given
\V is the list of possible VI ITIs
\X is the time (in seconds and undisplayable) until the next reward availability
\Y is the time until the next reward availability
\Z is the counter(?) for the VI intervals
    
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LIST V = 27,    20,    108,    95,    2,    28,    14,    98,    62,    72,
8,    90,    60,    11,    80,    26,    22,    31,    118,    52,    113,
3,    98,    60,    97,    80,    77,    82,    118,    99,    15,    30,
54,    6,    54,    86,    34,    91,    26,    70,    36,    5,    70,
76,    23,    42,    112,    81,    4,    17,    43,    31,    19,    4,
57,    60,    74,    117,    80,    45,    72,    70,    71,    108,    94,
56,    58,    19,    40,    50,    104,    2,    117,    79,    48,    4,
69,    70,    12,    116,    107,    62,    31,    89,    69,    85,    77,
107,    74,    49,    78
    
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\109,    3,    34,    95,    47,    53,    63,    101,    86,    49,    98,
95,    21,    106,    15,    92,    113,    98,    6,    70,    35,    34,
64,    60,    84,    66,    19,    2,    69,    13,    80,    25,    12,
25,    70,    119,    50,    41,    116,    22,    24,    118,    92,    43,
21,    32,    35,    108,    39,    58,    82,    82,    95,    89,    69,
27,    74,    118,    21,    37,    105,    22,    51,    69,    115,    62,
20,    32,    112,    111,    42,    33,    26,    24,    75,    45,    8,
43,    118,    104,    83,    49,    42,    49,    98,    47,    1,    65,
8,    40,    77
    
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\
\24,    46,    43,    32,    58,    106,    51,    7,    110,    104,    39,
44,    32,    23,    42,    40,    102,    92,    48,    21,    75,    73,
110,    22,    8,    94,    114,    87,    31,    55,    15,    31,    102,
105,    73,    36,    11,    42,    25,    54,    93,    32,    29,    49,
37,    13,    79,    110,    78,    50,    115,    100,    42,    99,    29,
9,    63,    5,    18,    74,    105,    100,    112,    66,    84,    12,
50,    3,    102,    89,    119,    31,    90,    96,    76,    68,    52,
45,    108,    41,    58,    75,    111,    6,    8,    97,    50,    26,
    
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|-------|------|------|------|------|------|------|------|------|------|------|--|
| 112, | 33, | 24 | | | | | | | | | |
| \40, | 56, | 77, | 78, | 61, | 18, | 93, | 98, | 23, | 6, | 89, | |
| 45, | 77, | 53, | 49, | 101, | 13, | 14, | 107, | 115, | 35, | 64, | |
| 94, | 28, | 96, | 46, | 19, | 104, | 40, | 47, | 53, | 9, | 75, | |
| 60, | 14, | 63, | 45, | 34, | 11, | 37, | 90, | 90, | 13, | 5, | |
| 113, | 52, | 91, | 48, | 43, | 90, | 52, | 108, | 82, | 89, | 3, | |
| 3, | 99, | 12, | 58, | 75, | 64, | 55, | 20, | 86, | 112, | 11, | |
| 116, | 59, | 106, | 101, | 44, | 78, | 6, | 49, | 14, | 22, | 101, | |
| 109, | 108, | 29, | 30, | 96, | 94, | 61, | 39, | 10, | 42, | 100, | |
| 74, | 93, | 68 | | | | | | | | | |
| \114, | 78, | 17, | 23, | 18, | 16, | 48, | 76, | 112, | 71, | 95, | |
| 110, | 51, | 19, | 59, | 25, | 25, | 78, | 57, | 75, | 68, | 70, | |
| 4, | 84, | 99, | 90, | 112, | 96, | 113, | 32, | 115, | 80, | 76, | |
| 4, | 88, | 13, | 83, | 111, | 15, | 24, | 25, | 21, | 65, | 87, | |
| 111, | 84, | 7, | 83, | 106, | 63, | 116, | 2, | 12, | 44, | 50, | |
| 107, | 110, | 7, | 9, | 49, | 45, | 56, | 116, | 30, | 70, | 9, | |
| 31, | 88, | 7, | 26, | 7, | 68, | 53, | 98, | 111, | 94, | 15, | |
| 23, | 85, | 6, | 75, | 102, | 64, | 23, | 95, | 109, | 40, | 66, | |
| 24, | 23, | 39 | | | | | | | | | |
| \69, | 98, | 91, | 30, | 2, | 102, | 118, | 11, | 99, | 119, | 52, | |
| 48, | 11, | 52, | 48, | 46, | 61, | 97, | 80, | 4, | 14, | 104, | |
| 26, | 94, | 117, | 26, | 103, | 35, | 103, | 109, | 118, | 1, | 112, | |
| 29, | 25, | 111, | 53, | 42, | 10, | 36, | 47, | 117, | 90, | 30, | |
| 33, | 12, | 84, | 62, | 83, | 75, | 43, | 17, | 14, | 15, | 104, | |
| 13, | 61, | 53, | 86, | 9, | 8, | 56, | 54, | 6, | 101, | 91, | |
| 42, | 11, | 63, | 33, | 15, | 113, | 4, | 1, | 72, | 97, | 31, | |
| 88, | 49, | 115, | 87, | 80, | 79, | 55, | 38, | 18, | 77, | 100, | |
| 109, | 39, | 114 | | | | | | | | | |
| \109, | 71, | 46, | 89, | 116, | 67, | 26, | 36, | 115, | 89, | 95, | |
| 75, | 53, | 5, | 30, | 111, | 71, | 58, | 40, | 69, | 29, | 29, | |
| 52, | 8, | 101, | 76, | 73, | 2, | 63, | 15, | 62, | 26, | 4, | |
| 36, | 59, | 69, | 90, | 107, | 59, | 19, | 84, | 95, | 13, | 19, | |
| 69, | 2, | 70, | 109, | 80, | 85, | 97, | 109, | 112, | 23, | 36, | |
| 91, | 116, | 106, | 27, | 28, | 1, | 46, | 45, | 27, | 110, | 48, | |
| 25, | 92, | 27, | 96, | 96, | 8, | 9, | 71, | 106, | 50, | 31, | |
| 110, | 98, | 37, | 27, | 7, | 74, | 40, | 6, | 52, | 110, | 28, | |
| 52, | 73, | 77 | | | | | | | | | |
| \40, | 9, | 9, | 87, | 25, | 40, | 45, | 72, | 79, | 94, | 94, | |
| 104, | 35, | 91, | 89, | 57, | 108, | 38, | 109, | 9, | 60, | 24, | |
| 19, | 1, | 38, | 101, | 65, | 39, | 89, | 52, | 40, | 94, | 50, | |
| 96, | 1, | 103, | 19, | 63, | 27, | 84, | 118, | 102, | 104, | 21, | |
| 16, | 92, | 4, | 102, | 4, | 112, | 118, | 1, | 38, | 86, | 27, | |
| 72, | 99, | 25, | 51, | 40, | 72, | 21, | 59, | 68, | 106, | 13, | |
| 62, | 47, | 17, | 23, | 95, | 72, | 118, | 36, | 101, | 82, | 37, | |
| 6, | 42, | 99, | 17, | 86, | 28, | 111, | 91, | 38, | 73, | 72, | |
| 74, | 64, | 39 | | | | | | | | | |

DIM P = 10 \Sessi on parameters

DIM E = 20

DIM F = 20

DIM G = 20

DISKVAR S = A, B, C, D, K, E, F, G

\ Starts the house light and run the VI program with VI di splays and reward di splays (also del i vers pel lets).

S. S. 1,

S1,

0.01": SET P(0) = 90; \sessi on length

SET P(1) = 300; \number of seconds i n the first data block (i n thi s case,

90 min chamber habituation

contextual pressing)

SET B = 0;
SHOW 1, W, 0 ----> S2

S2,
#START: ON ^HOUSELIGHT ----> S3

S3,
0.01": LIST Y = V(Z); SET U = Y + H; SET X = Y*1"; SHOW 1, RF TM, U ----> S4
\ this sets the VI timer

S4,
X#T: SHOW 1, RF TM, 0 ----> S5
\this waits until the time is up and then awaits a response

S5,
#R^LEVER: ADD D; SHOW 5, Rewards, D; Z1 ----> S3
0.01": SHOW 1, RF TM, 0 ----> SX

\this delivers a reward after a press and it also zeros out the reward timer so you know reward is available

\need to define time, z1 in addition to the other things not mentioned
\also, this state set has that pesky thing you don't understand (although page 55 might help if you study it)
\see page 26, second part of S.S.1, S1 for the FI counter (this may be omitted in your program)

\ Response Counter & Screen Update

S. S. 2,
S1,
#START: SHOW 4, Responses, A, 5, Rewards, D ----> S2

S2,
#R^LEVER: ADD A; SHOW 4, Responses, A ----> SX
#R^INACTIVE: ADD B ----> SX
#R^FOODCUP: ADD C; ; SHOW 3, APPROACH, C ----> SX
\This is meant to store the data for the first 5 minutes
S. S. 3,

S1,
#START: SET P(1) = P(1)*1" ----> S2

S2,
P(1)#T: ADD K ----> SX
#R^INACTIVE: ADD F(K) ----> SX
#R^LEVER: ADD E(K) ----> SX
#R^FOODCUP: ADD G(K) ----> SX

\ PELLET CONTROL TIMER
\ (Includes K1-pulse for delivering a free pellet)

S. S. 4,
S1,
#Z1: ----> S2
#K1: ADD J; ON ^feeder ----> S2

S2,
0.5": OFF ^feeder ----> S1

90 min chamber habituation

S. S. 5, \ Increment time "T" with resolution 1 seconds

S1,
#START: ---> S2

S2,
1": ADD H; SHOW 2, Present, H ---> SX

S. S. 10,

S1,
#START: SET P(0) = P(0)*1' ---> S2

S2,
P(0)#T: OFF ^HOUSELIGHT ---> STOPABORTFLUSH