**README for *chinch* code (for subjects)**

Run *chinch.m* (in *chinchCODE* folder)

* OK welcome
* In GUI
  + Pick subject in “ID” (upper left)
  + Type in weight (use 999 for human - not relevant, but needed)
  + Pick condition from drop down: Run name (NP)
    - Run 3 blocks of each of the 3 conditions
    - Use the following order to mix-up order effects
    - RCA CAR ARC *(9 total blocks, ~10 min each)* 
      * Where R: REF, C: CORR, A: ACORR
  + Specify output file name according to following convention:
    - **H3\_D1a\_CMR3H\_REF\_test30\_1365** 
      * Where
      * **H3** = your subject ID
      * **D1** = Day # (increase by 1 for each new day you collect data)
      * **a** = block on that day (i.e., a, b, c, … increae by one for each block you run today)
      * **CMR3H\_REF\_test30\_1365**: Condition name
    - *This naming convention is used to sort data for analysis, where chins have hundreds of days*
  + Press “Accept”
  + Press “Run”
    - OK if asked about turning device panel on
    - “No” pellet test.
  + 64 trials will run: follow instructions on command window
    - *BEFORE 1st trial, set your headphones (WIRED, in QUIET ROOM) to typical comfortable volume*
      * *DURING 1st trial, make any adjustment required to volume – you will hear many tones in each trial so should be enough time to adjust if needed.*
    - <Enter> starts (and ends) a trial
      * Trials are a random number of standard stimuli, with the last 4 being either:
        + *<SIG STD SIG STD>* – if you hear SIG (tone), press *<Enter>*
        + *<STD STD STD STD>* – If you do not hear SIG, only press *<Enter>* once sound has stopped.

Where (STD: noise only; SIG: tone and noise)

* + - You will receive “partial reinforcement” in the same manner the chinchillas do (they get food pellets as rewards, you get a message – sorry!)
      * “reward” for *Hit* or *Correct Rejection* is seeing the word “CORRECT”
        + This occurs only 90% of the time (same as for the chins).

*This partial reinforcement is used in operant conditioning to resist extinction of a learned behavior, although it take longer to learn.*

* + - * All other trials receive no feedback, just like the chins not getting a pellet.
* At end, two data files are created
  + \*.mat
  + \*.DAT (text file with trial by trial recap of scores:
    - Ab – abort (answering before response window (final 4 sounds: BABA or AAAA)
    - Ht – Hit: detected tone when present
    - Ms – Miss: Missed tone when present
    - CR – Correct Rejection: correctly did not respond when tone not present
    - FA – False Alarm: responded when tone was not present
* “Exit” to end, or run new condition.