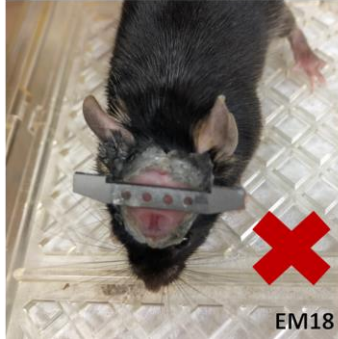Below are a list of failure modes and how to fix them.

Mice do not enter trigger head fixation for extended period of time

1. Mouse cannot poke in the headport
    1.1 Check the headbar position: anterior edge of headbar should line up with lambda suture; depressions go face up;
    1.2 NO glue or dental cement should occlude either side of the headbar;
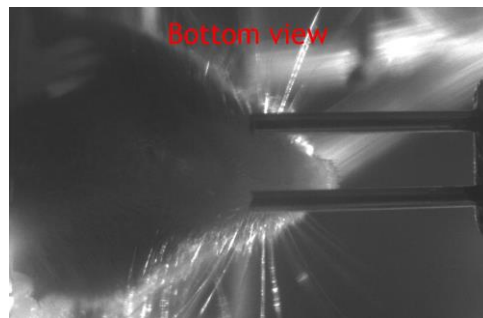   1.3 Headbar position should be consistent from mouse to mouse.

2. Mouse cannot access the lickport because the lickport is far from mouse
    2.1 The system needs a one-time manual adjust of the lickport position (along the forward/backward direction) at the beginning of head-fixation training, to make sure that the mouse can access the lickport when in head-fixed position (see 'construction_steps' for more details).
    2.2 The left/right position is controlled by the Arduino firmware (automatically) or GUI (manually).

3. The program can not detect licking when mouse licking.
    3.1 check if metal foil on the platform is electrically connected with the lickometer PCB to form a complete circuit.
    3.2 Check if lickometer PCB is working properly. The output voltage is around 0.3 V at resting and ~3.8 V when licking.

Mice do not advance in training for extended period of time

4. The pole does not drop down during the task.
   4.1 The pole may be stuck. Increase the air pressure to 3-4 bar to let the pole drop down then go back to 2 bars as normal.
   4.2 Try manually press down the pole (together with the motor).

5. Water valve could be running slow due to clog (need cleaning).
   5.1 Check periodically that water is coming out and the flow on the two lickspouts is evenly.

6. The mouse triggers self-release too frequently.
   6.1 Restart the Arduino_master board. Make sure the mouse is not on the platform when restarting.
   6.2 Check if the platform is block by bedding or other stuff.

7. Too much pole activity can cause the motor to malfunction
   7.1 Check the pole is being presented at the correct location. This should be checked periodically.