Basic Features in Each Arms:

backtrack_counts_CL

backtrack counts CR

backtrack counts OB

backtrack_counts_OT

backtrack_counts_total

backtrack counts total closed

backtrack_counts_total_open

frames in arms CL

frames_in_arms_CR

frames in arms M

frames in arms OB

frames_in_arms_OT

 $tot_arm_entries_CL$

tot_arm_entries_CR

tot_arm_entries_F1

tot_arm_entries_F2

tot_arm_entries_F3

tot_arm_entries_F4

 $tot_arm_entries_M$

tot_arm_entries_OB

tot_arm_entries_OT

total distance CL

total_distance_CR

 $total_distance_F1$

total_distance_F2

total_distance_F3

total_distance_F4

 $total_distance_M$

 $total_distance_OB$

total_distance_OT

total_distance_closed

total_distance_open

Mouse Length

Time Spent in Arms

fraction_in_arms_bottom

fraction in arms closed

 $fraction_in_arms_closed_and_middle$

fraction_in_arms_left

fraction in arms middle

fraction_in_arms_open.arms

fraction in arms right

```
fraction_in_arms_top
```

Time Spent in Safety:

```
safety_and_rest_fraction_CL
safety_and_rest_fraction_CR
safety_and_rest_fraction_closed_arms
safety_fraction_CL
safety_fraction_CR
safety_fraction_closed_arms
```

Time Spent in Rest:

rest_fraction_CL
rest_fraction_CR
rest_fraction_M
rest_fraction_OB
rest_fraction_OT
rest_fraction_all_arms
rest_fraction_closed_arms
rest_fraction_open_arms

Peeking Behavior:

peeking average length CL peeking_average_length_CR peeking average length M peeking average length total peeking_count_CL peeking count CR peeking_count_M peeking_count total peeking_fraction_CL peeking fraction CR peeking_fraction_M peeking_fraction_total peeking median length CL peeking median length CR peeking median length M peeking median length total

Velocities While Active:

```
velocity_CL_down_average_speed velocity_CL_down_average_speed_active velocity_CL_down_median_speed velocity_CL_down_median_speed active
```

```
velocity_CL_left_average_speed
```

velocity CL left average speed active

velocity CL left median speed

velocity_CL_left_median_speed_active

velocity_CL_right_average_speed

velocity_CL_right_average_speed_active

velocity_CL_right_median_speed

velocity_CL_right_median_speed_active

velocity_CL_total_average_speed

velocity_CL_total_average_speed_active

velocity CL total median speed

velocity CL total median speed active

velocity_CL_up_average_speed

velocity CL up average speed active

velocity CL up median speed

velocity CL up median speed active

velocity_CR_down_average_speed

velocity_CR_down_average_speed_active

velocity_CR_down_median_speed

velocity CR down median speed active

velocity CR left average speed

velocity CR_left_average_speed_active

velocity CR left median speed

velocity CR left median speed active

velocity CR right average speed

velocity_CR_right_average_speed_active

velocity_CR_right_median_speed

velocity_CR_right_median_speed_active

velocity_CR_total_average_speed

velocity CR total average speed active

velocity_CR_total_median_speed

velocity_CR_total_median_speed_active

velocity CR up average speed

velocity CR up average speed active

velocity_CR_up_median_speed

velocity CR up median speed active

velocity M down average speed

velocity M down average speed active

velocity_M_down_median_speed

velocity M down median speed active

velocity M left average speed

velocity M left average speed active

velocity_M_left_median_speed

velocity M left median speed active

velocity_M_right_average_speed velocity M right average speed active velocity M right median speed velocity M right median speed active velocity M total average speed velocity M total average speed active velocity M total median speed velocity M total median speed active velocity M up average speed velocity M up average speed active velocity M up median speed velocity M up median speed active velocity_OB_down_average_speed velocity OB down average speed active velocity OB down median speed velocity OB down median speed active velocity_OB_left_average_speed velocity OB left average speed active velocity OB left median speed velocity OB left median speed active velocity OB right average speed velocity OB_right_average_speed_active velocity OB right median speed velocity OB right median speed active velocity OB total average speed velocity_OB_total_average_speed_active velocity_OB_total_median_speed velocity OB total median speed active velocity_OB_up_average_speed velocity OB up average speed active velocity_OB_up_median_speed velocity OB up median speed active velocity OT down average speed velocity_OT_down_average speed active velocity OT down median speed velocity OT down median speed active velocity OT left average speed velocity_OT_left_average_speed_active velocity OT left median speed velocity OT left median speed active velocity OT right average speed velocity OT right average speed active velocity OT right median speed velocity OT right median speed active

velocity_OT_total_average_speed velocity OT total average speed active velocity_OT_total_median_speed velocity OT total median speed active velocity OT up average speed velocity_OT_up_average_speed_active velocity_OT up median speed velocity OT up median speed active velocity closed towards middle average speed velocity closed towards middle average speed active velocity closed towards middle median speed velocity closed towards middle median speed active velocity_closed_towards_outside_average_speed velocity closed towards outside average speed active velocity closed towards outside median speed velocity closed towards outside median speed active velocity open towards middle average speed velocity open towards middle average speed active velocity open towards middle median speed velocity open towards middle median speed active velocity open towards outside average speed velocity open_towards_outside_average_speed_active velocity open towards outside median speed velocity open towards outside median speed active

Turning Preference:

turning preferences fraction back turning preferences fraction back into closed turning preferences fraction back into open turning preferences fraction back only straight back turning preferences fraction back only straight back into closed turning preferences fraction back only straight back into open turning preferences fraction left turning preferences fraction left into closed turning preferences fraction left into open turning preferences fraction left only right left turning preferences fraction left only right left into closed turning preferences fraction left only right left into open turning preferences fraction right turning preferences fraction right into closed turning preferences fraction right into open turning preferences fraction right only right left turning preferences fraction right only right left into closed turning preferences fraction right only right left into open

turning_preferences_fraction_straight_into_closed
turning_preferences_fraction_straight_into_open
turning_preferences_fraction_straight_only_straight_back
turning_preferences_fraction_straight_only_straight_back_into_closed
turning_preferences_fraction_straight_only_straight_back_into_open
turning_preferences_num_total
turning_preferences_num_total_into_closed
turning_preferences_num_total_into_open