Block

Trial

Reward

Transition

Stimulus

**Reward**

Parameter description

*type* = 'velocity' or 'interval' or 'none'

*For type velocity:*

thresholdVelocity: velocity at which we detect running, in cm/s  
thresholdDuration: time to track above or below threshold behaviour  
thresholdComparator: '<' or '>', depending on if we want to track velocity below or above threshold velocity

*For type interval*

intervalDuration: frames before a reward is delivered  
repeatInterval: 'on' or 'off'

**Usage:**

**reward = Reward(type);  
reward.SetVelocityParams(thresholdVelocity,thresholdDuration,thresholdComparator);  
reward.SetIntervalParams(intervalDuration, repeatInterval);**

**Transition**

*type* = 'velocity' or 'duration'

*parameters for type 'velocity'*

thresholdVelocity  
thresholdDuration  
thresholdComparator

*parameters for type 'duration'*

trialDuration

**Usage:**

**transition = Transition(type);  
transition.SetVelocityParams(thresholdVelocity, thresholdDuration, thresholdComparator);  
transition.SetTrialDuration(trialDuration);**

**Stimulus**

*type* = 'image' or 'aperture\_grating' or 'gabor\_grating'

*general parameters*

startDisplay At which frame in the trial this stimulus is presented  
stopDisplay At which frame in the trial the stimulus is removed  
top Top position of the stimulus  
left Left position of the stimulus  
width Width of the stimulus  
height Height of the stimulus

*parameters for type 'image'*

location Location of the stimulus on your computer

*parameters for type 'aperture\_grating' or 'gabor\_grating'*

orientation Orientation in degrees of the grating  
spatialfrequency Spatial frequency of the stimulus in cycles per pixel  
phase Phase of the stimulus in degrees  
radius Radius (aperture\_grating) or

**Usage:**

**imageStimulus = Stimulus('image');  
imageStimulus.SetLocation(stimulusLocation);**

**Trial**

order: filled in by the generator  
condition: Condition to which the stimulus belongs. This number will also be sent to the Cheetah system using the DAQ input  
rewardObject: Associates a reward schedule with this trial. Default is none  
transitionObject: Associate a transition with this trial. Default is duration  
stimulusList: Contains which stimuli are presented during this trial

Usage: