DIO-eGFP Fiber photometry NAc VM or VP D1-Cre













Supplementary information, Fig. 1 The changes of GCaMP6m signal in D1^{NAc-VM} and D1^{NAc-VP} projections in response to stimuli were not due to a movement artifact.

a, Strategy for recording eGFP fluorescence of D1^{NAc-VM} or D1^{NAc-VP} projection in response to stimuli in freely moving mice. AAV_9 - $EF1\alpha$ -DIO-eGFP was injected into the NAc of D1-Cre mice, with optical fiber implanted over the VM or VP. **b-g**, Plot graph of group average eGFP signal aligned to the onset of sucrose licking (**b**), sucrose pellet consumption (**c**), sniffing of female stranger (**d**), retreat from the novel object in the central arena in the approaching-retreat test (**e**), air puff (**f**), or tail suspension (**g**). This control experiment was conducted to ascertain the validity of GCaMP6m fluorescence change in the projection in response to stimuli. Related to Figure 1.