Supplementary Information

Artificial 2D van der Waals Synapse Devices via Interfacial Engineering for Neuromorphic Systems

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1. Raman spectrum of WSe_2 and $NbSe_2$ after transfer process

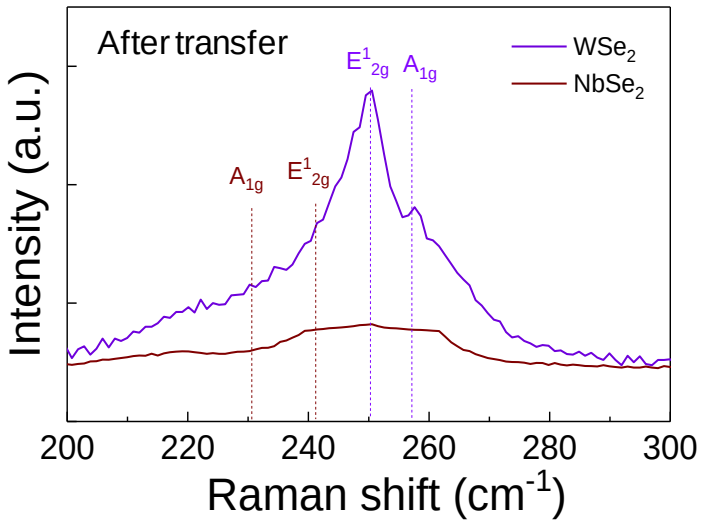

Figure S1. Raman spectrum of WSe_2 and $NbSe_2$ with stacked device structure after transfer process

2. Repeatability test of DC transfer double sweep curves with different Nb_2O_5 thicknesses

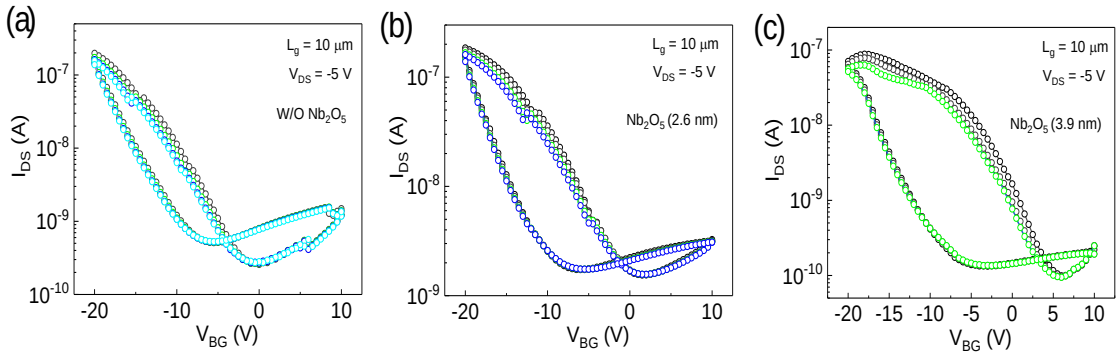

Figure S2. Repeating test of DC transfer curves with different Nb_2O_5 thicknesses

3. The dependence of DC sweep speed on transfer curves

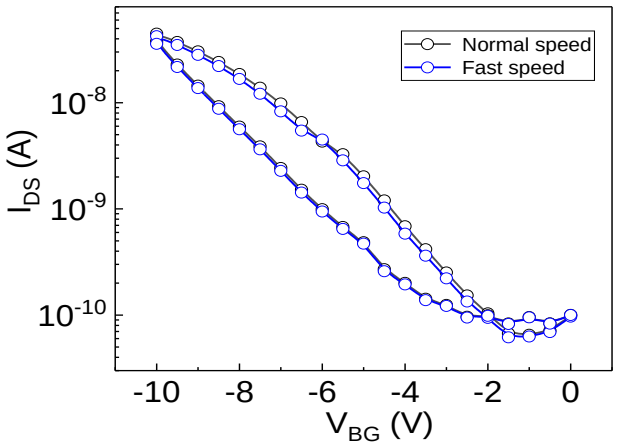

Figure S3. The dependence of DC sweep speed on transfer curves with 2.6 nm thickness of Nb_2O_5