

## **Centrifuges**

We have two centrifuges related to DNA origami projects. When centrifuging, the balance is very important

### **Mini Plate Spinner MPS 1000 by Labnet**

This is the centrifuge for DNA planes. There is no setting in the spinning speed

1. Put one plane in. Make sure that the bottom of the wells is facing outside, while the rubber sealing is facing inside
2. Spin the knob so that the other slot can be exposed. Put the second plane in. The second plate should have roughly the similar number of wells occupied (essentially the similar weight)
3. Shut the hood and the centrifuge will start spinning. Hold the centrifuge by hand so that it won't be out of control
4. When it gets very hard to hold, press the open button. Then centrifuge will cut power, the hood will pop open, and the spinning will be held on break
5. Wait until it is not spinning at all, fetch the planes out by using the knob. Check the liquid level in the DNA planes to make sure all are on the bottom of the wells

### **Centrifuge 5425 by Eppendorf**

This is the centrifuge for 1.5 mL and 0.2 mL tubes. When using for 0.2 mL tubes, 1.5 mL tubes without the lid are required so that the small tubes won't fail in the centrifuge

1. Put the tubes in. Make sure they are in balanced position and weight. When needed, use tap water and empty wasted tubes
2. Put the cap of the centrifuge on and spin the central knob so that it is tight. Shut the lid. It should lock on its own. If you need to open the lid, press 'open' button
3. Adjust the speed and time. Normally we use rpm (by 'rpm rcf' button) as the speed unit
  - a. 1250 rpm for just top speed a few second can push all the liquid to the bottom of the tubes
  - b. 5000 rpm 3 min can be the general setting for filter purification
4. Press 'start stop' button. It will start spinning. Check for abnormal sounds. If sound is strange and serious vibration is detected, press 'start stop' to stop and check for faulty balance or damaged parts
5. Once it's ready, it will stop and open on its own with three time of beeping sounds. If the sounds it too noisy, it can be killed by pressing 'open' button