**Shaking Table Mechanism Ideation**

1. Vibrating motors mounted under tabletop
   * Driving force: vibrating motor
   * Support: rollers, maybe brackets on the sides
   * Notes: motors constructed with a hobby motor spinning off-center weight attached to underside of tabletop
   * Construction: attach appropriately sized motor(s) to underside of tabletop with room for the off-center weights to spin freely, support the tabletop with rollers (mounted on shelf)
   * Parts needed:
     1. motor mount(s) under tabletop – hobby store mount, thin plywood, 3d print or shapelock as last resort
     2. roller mount on shelf – stacked spare plywood
     3. roller constraint – conduit or giant ziptie
     4. brackets?
2. Tabletop mounted on driven wheels
   * Driving force: wheel or tank tread on gearbox
   * Support: rollers, maybe elastics on the sides
   * Notes: tabletop must be sufficiently weighted to ensure friction with tires/ tread
   * Construction: attach motor mount and roller mount to shelf so that tabletop rests on both evenly, weight tabletop sufficiently for tires to grip
   * Parts needed:
     1. gearbox mount on shelf – two inch wide plywood strip on top of other spacing
     2. roller mount on shelf – stacked spare plywood
     3. roller constraint – conduit or giant ziptie
     4. strong elastics on corners?
3. Hinge and Spring mechanism
   * Driving force: springs set into motion by removal of lever
   * Supports: Springs, hinges and removable lever
   * Notes: Support should be sturdy (high torque motor) and roller based, to produce little friction with underside of tabletop
   * Construction: build a right angle with a roller at the end that can be attached to the stepper/ sail winch servo motor, constrain springs on the corners of the shelf, maybe add a flat mount to the other ends of the springs to reduce possibility of buckling against the tabletop
   * Parts needed:
     1. Hinges
     2. Spring constraints – PVC
     3. Spring flat mounts – PVC + plywood
     4. Hobby store supplies to build lever arm