Objective: Build a wave machine that demonstrates various wave phenomena. Observe and record wave motion as wave characteristics are altered.

 **STEP 1 - Supplies:**

* 1 Ring Stand
* 1 Meter Stick
* Duct Tape – 1.5 meters
* 50 Wooden Skewers
* 100 Mini Marshmallows

**STEP 2 - Setup:**

* Place ring stand on table
* Measure 1.5 meters of duct tape
	+ Leave about 3 cm on one of the ends for later
* Lay the duct tape flat - sticky side up - secure it with clear tape if needed
* Start placing skewers 3 fingers apart - press firmly so they stick to duct tape. Be sure that each skewer in placed perfectly centered on the duct tape.
* \*\*\*Make sure to do this neatly so the skewers line up
* Once all skewers are gone OR you reach the end - secure duct tape on ring stand (sticky side up) leaving the other end free to hold. Return any unused skewers and marshmallows
* Now, **carefully** add one marshmallow on each side of skewer

**STEP 3 - Test your Wave Machine:**

* **GET YOUR CAMERAS READY!**
* Always stop all waves on the machine prior to making the next set of observations.
* A wave pulse is a single burst of energy.
* A periodic wave is generated from repeated motion at a regular time interval (period).
* **Have one classmate (Classmate A) hold the free end (tightly)**
* **Have another student (Classmate B) START the wave (carefully)**
* **Have 2 classmates record the wave. ( Classmate C & D)**
	+ **Capture: slow-mo and/or full speed, from the ring stand end, and from the side.**
* **1 person from your group submit the slow-mo or full speed videos through Schoology**