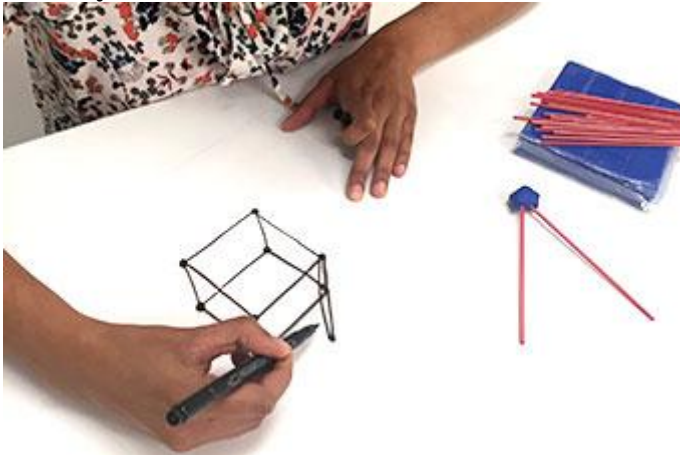


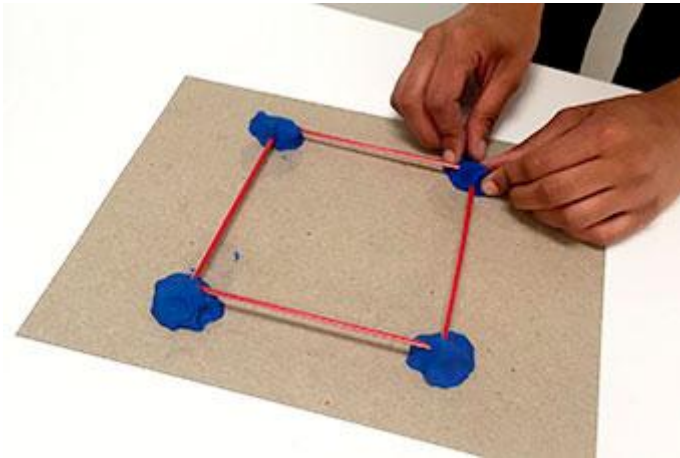
B42
STEM Hands-on Experiments –
SDG 9 Industry, Innovation and Ingrastructure

Activity/Experiment title:	DIY Tower for Earthquake Resistance Challenge
Activity owner: (Name of School/ Institution/University/Organization)	LKC FES Department of Civil Engineering
Description of activity/experiment: (objective, content, etc)	<p>Design a tower that is stable and sturdy enough to survive an earthquake</p> <p>Team size: 3-4 students / team</p> <p>Materials provided for each group:</p> <ul style="list-style-type: none"> - 20 pcs of drinking straws - 100 grams of modelling clay - Masking tape - A pair of scissors - A3-sized cardboard as the base of the building - A ruler (to measure height) - A paper - A pencil <p>Materials needed for testing:</p> <ul style="list-style-type: none"> - Mini shaking table <p>Procedures:</p> <ol style="list-style-type: none"> 1. Have a paper and a pencil to sketch the design ideas 2. Build the tower using the provided material 3. The building must be at least 10cm x 10cm width and 15cm tall 4. Put the building on top of the shaking table to withstand for 10 seconds to win the challenge 5. Winning certificate (with UTAR logo) will be given to the challenge winner
Time frame:	30 minutes to 1 hour

Activity 1:



Sketch the design idea



Build the tower model



Test the tower on the shaking table