

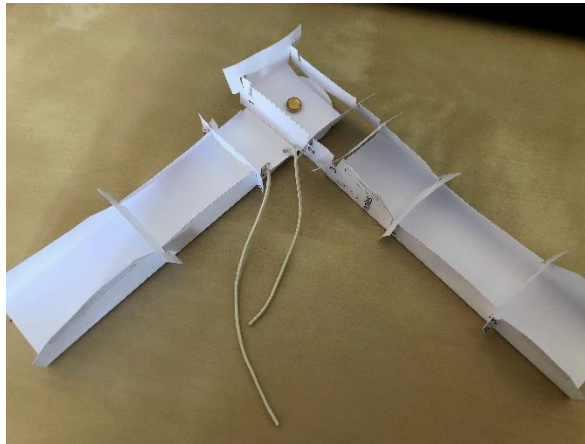
Exoskeletons

Teacher Notes

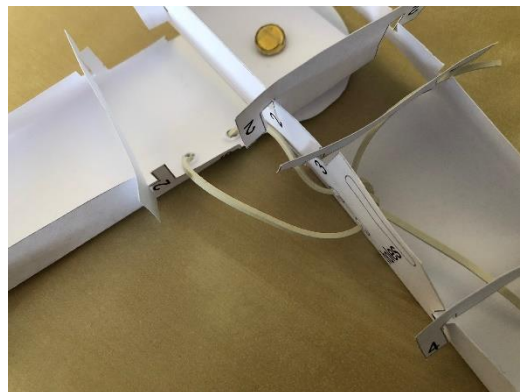
You may want to build a model as an example to show your pupils how to build their models.

The arm exoskeleton model in this activity shows how a human arm could be supported to produce a force if the bicep muscle doesn't work. The cardboard pieces are cut out and slotted together to give the rigid support, and an elastic band is used to mimic the force of the muscle.

Finished model:



The thin elastic band is cut and threaded through the marked holes. Once threaded it can be tied when the exoskeleton is set at a right angle. When the exoskeleton is straightened it will move back to the original bent position because the elastic band produces a force to move the rigid pieces.



Equipment needed per pair:

- Split pin
- Thin elastic band
- Scissors