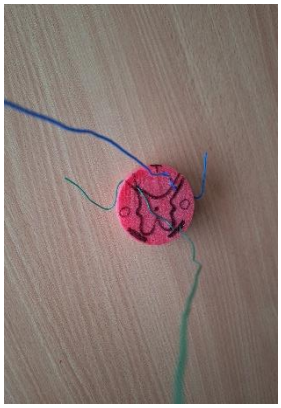
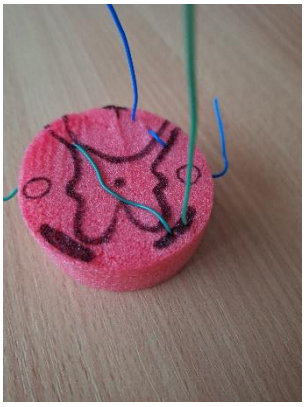
Hemisection model preparation

Step 1: Thread green and blue wires through lower thoracic spinal cord segment to indicate pathways of spinothalamic and dorsal columns respectively

Lower thoracic segment

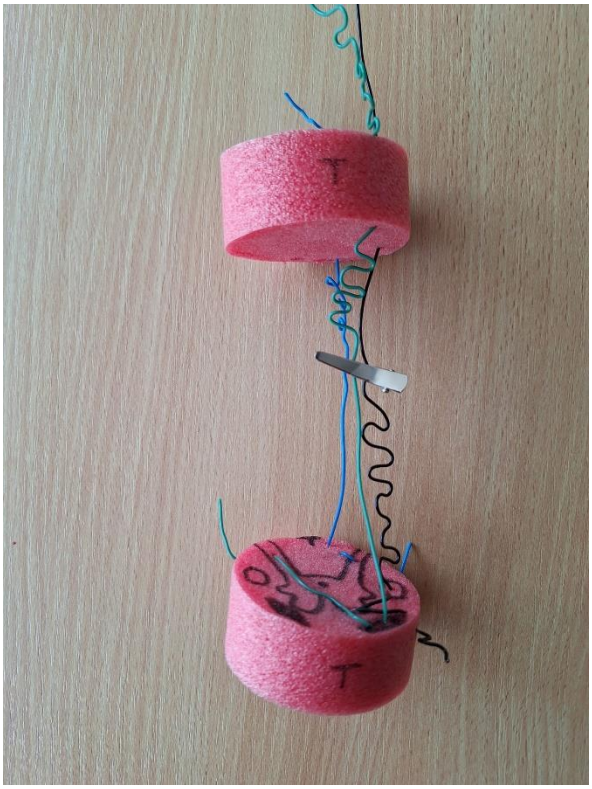


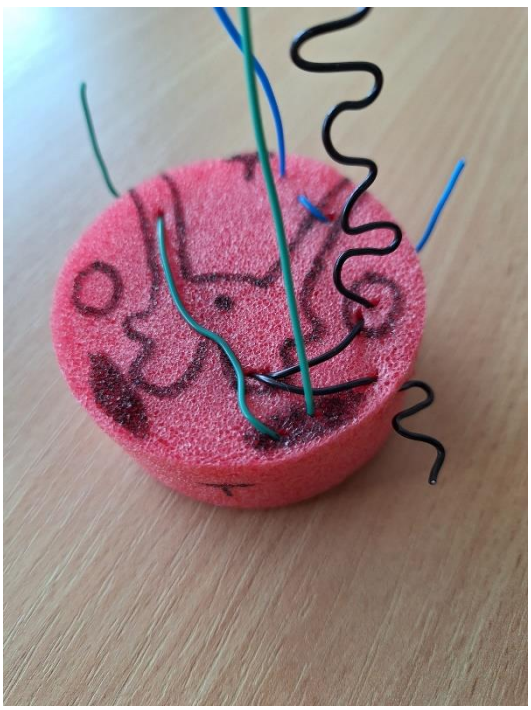


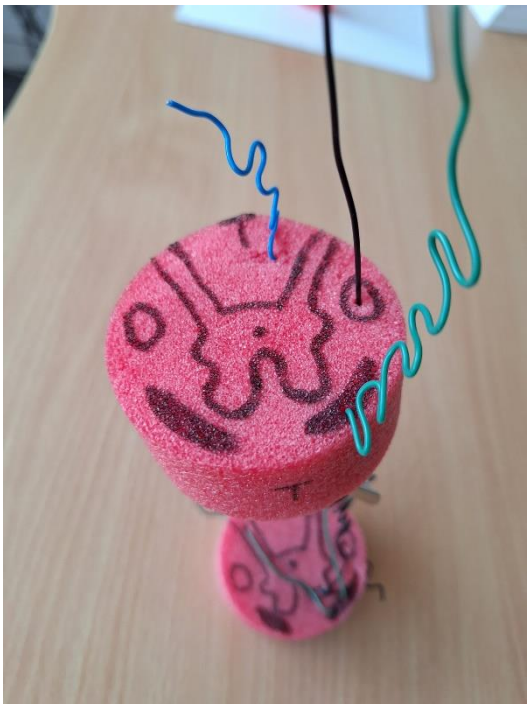
Step 2: Thread black wire through upper thoracic spinal cord segment to indicate lateral corticospinal pathway

Upper thoracic segment

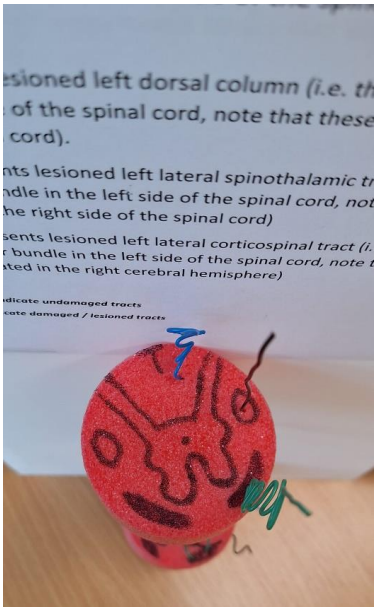
Step 3: Insert wires through both segments and insert clip to indicate hemisection lesion. Bend blue and green wires above level of lesion (above clip) and black wire below level of lesion (below clip). Straight wires indicate undamaged tracts; bent wires indicate damaged / lesioned tracts.

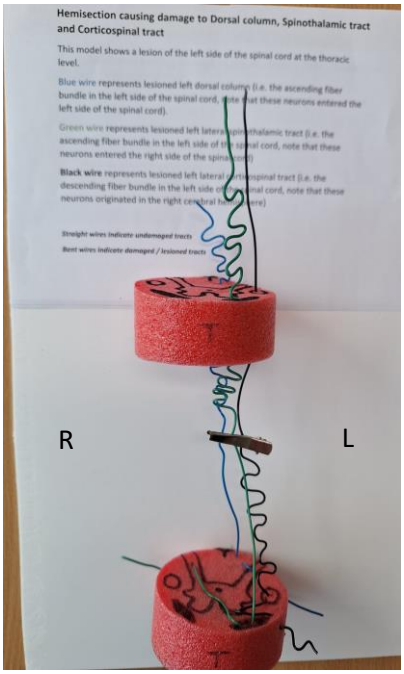






Step 4: Attach both segments to white board using glue. Attach model description to top of white board (see 'Hemisection causing damage to Dorsal column, Spinothalamic tract and Corticospinal tract' information pasted below).





Hemisection causing damage to Dorsal column, Spinothalamic tract and Corticospinal tract

This model shows a lesion of the left side of the spinal cord at the thoracic level.

Blue wire represents lesioned left dorsal column (i.e. the ascending fiber bundle in the left side of the spinal cord, note that these neurons entered the left side of the spinal cord).

Green wire represents lesioned left lateral spinothalamic tract (i.e. the ascending fiber bundle in the left side of the spinal cord, note that these neurons entered the right side of the spinal cord)

Black wire represents lesioned left lateral corticospinal tract (i.e. the descending fiber bundle in the left side of the spinal cord, note that these neurons originated in the right cerebral hemisphere)

Straight wires indicate undamaged tracts

Bent wires indicate damaged / lesioned tracts