

Answer to point 4:

Probably the main problem is the precision of the result. This is because in order to get the behaviour we wanted, we had to do more processing on the signal and somehow adapt it to our needs, since otherwise we would not have got this behaviour.

Answer to point 5:

When we thought about different ways to map EMG activity, we came up with different processing that could be applied to the signal after the pre-processing phase.

For example, instead of using the derivative block (as in Exercise 2.4), we could use a cumulative or integral block: in this way, a positive signal would correspond to an increase in the cumulative amplitude, while a negative signal would correspond to a decrease, and when this signal returns to a value of 0, it means that the cursor has returned to its initial position, i.e. the centre.

While browsing the Internet, we also found several papers using more complex techniques such as neural networks or support vector machines (SVMs) to develop complex methods for mapping the EMG signal.