

**FUNCTION** *With\_IO\_spike*(potential\_to\_add):

**Declaration**

$V_{\text{initial}} = -75.$            #Parameter, float

    Threshold = -65.       #Parameter, float

$V_{\text{add}} = \text{potential\_to\_add}$  #Parameter, float

**Start**

$V_{\text{membrane}} = V_{\text{initial}} + \text{potential\_to\_add}$    #Variable, float

**If** ( $V_{\text{membrane}} \geq \text{Threshold}$ ):

        return TRUE

**else:**

        return FALSE

**EndFunction**

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**MainProgram** *Main*(potential\_to\_add):

**Declaration**

$V_{\text{add}} = \text{potential\_to\_add}$        #Parameter, float

**Start**

    spike = with\_IO\_spike( $V_{\text{add}}$ )   #Variable, bool

    print("The neuron spiked: ", spike)

**End**