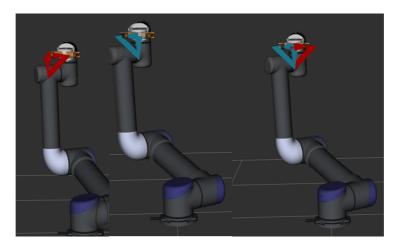
MU student number: 20123302

name: lizheng

## **Triangle function**

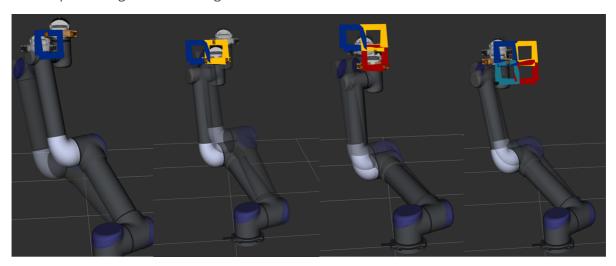
To complete the function <code>triangle\_trajectory</code>, I illustrate the detail content below. Because two different color triangles are needed for the LOGO, so I write two different function to draw the <code>left\_triangle\_trajectory</code> and <code>right\_triangle\_trajectory</code>. These two functions only take the different points to cover.

It is notable that these two triangles must stay with squares in the same x axis, and the y axis location must intersect with the section row squares. Then combine these two right triangles together, and we can get the "V" shape. In order to draw these two triangles in different color, I initiate two marker instances.



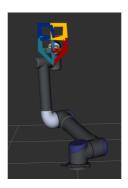
## Two layer rectangle

I have already learned the rectangle function from tutorial, so we need only set different color and position to compose the **maynooth university** logo. Thees four rectangles intersect with each other to compose a large square. Because the square border is too thick, the adjacent edges overlap each other. But there was also this problem with the images in the request file, so I ignored it. To reduce the cost of the manipulator, it draw the rectangle as the adjacent manner. From top left to right to bottom right to left.



Notice: I found the given color data (0, 0.65, 0.5) of the top-left rectangle is different from the actual one, so I just change it to purse the "real" blue (0, 0.16, 0.5)

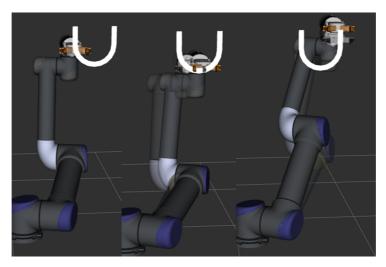
Then I summarize the rectangle and triangle to compose the badge.



## **Draw M and U**

For drawing the M, I only need to invoke the existing function <code>m\_trajectory</code> which is provided in tutorial.

For drawing U, I divide it into three parts: |(left), curve and |(right), and then add a downward curve (half circle) to connect these two |. The draw consequence is just same as handwrite.



In order to keep the logo aesthetic, I adjusted the spacing between the badge and the M and U to ensure that they were similar in size. The final desired logo is shown as follow:

