## TASK 2

Motor and Encoder Testing - In this task, the team will perform basic tests for the motor (proper forward, backward, right and left motion), and encoder operations.

Brief Explanation:

Images/pins used

## Steps:

- 1. Install latest Arduino IDE, open "Sketch" menu, "Include Library", then "Manage Libraries..", and install "Romi32U4" library
- 2. Open "MotorTest", found under File->Examples->Romi32U4->MotorTest or simply run "Motors.ino" found within the GitHub repository under Task 2.
- 3. Upon pressing button A on the Romi board, each motor will run forward and backward.
- Following this, open "Encoders", found under File->Examples->Romi32U4->Encoders or simply run "Encoders.ino" found within the GitHub repository under Task 2.
- 5. While pressing button A both left and right motors will run forward and while pressing button C they will run backwards. Open the Serial Monitor under Tools to see a live update of the encoder readings. Note that these values should be increasing when the wheels move forward and decreasing when they move backward.



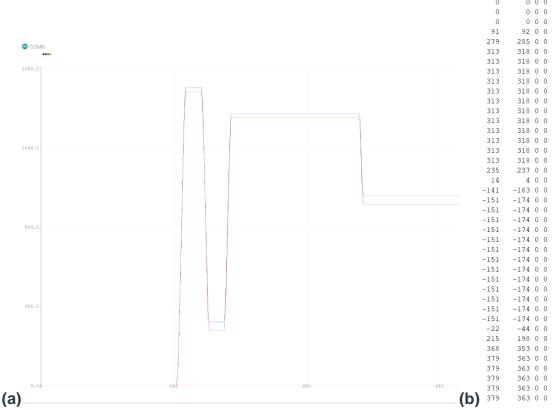


Fig. 1: (a) Serial Plotter illustrating the left and right encoder count when running the motors forward->backward->forward->idle->backward (b) Serial Monitor illustrating left and right encoder count when running motors idle->forward->backward->forward