EXPERIMENT 9: MANUAL TELEOPERATION USING SWITCHES

- **Objective**
- This experiment's objective is to manually control the Chelonia Bot using push buttons, enabling forward motion, backward motion, left turns, and right turns.
- **Setup**
- Assemble the Chelonia Bot hardware following the instructions in Section 2.1.
- Connect the Chelonia Bot to the Arduino IDE as explained in Section 2.3.
- Establish the following hardware connections:
- Motor A (Left Motor):
  - Pin 8 (motor1A): Connect to the first motor's input A (IN1).
  - Pin 9 (motor1B): Connect to the first motor's input B (IN2)
- Motor B (Right Motor):
  - Pin 10 (motor2A): Connect to the second motor's input A (IN3)
  - Pin 11 (motor2B): Connect to the second motor's input B (IN4).
- Push Buttons:
  - Pin 2 (FWDBTN): Connect to the forward button.
  - Pin 3 (BCKBTN): Connect to the backward button.
  - Pin 4 (LFTTURN): Connect to the left turn button.
  - Pin 7 (RGHTTURN): Connect to the right turn button.
- Ensure proper connections to enable manual control of the Chelonia Bot.
- Code Example: Manual Teleoperation using switches
- **Usage Instructions**
- Press the forward button (FWDBTN) to move the Chelonia Bot forward.
- Press the backward button (BCKBTN) to move the Chelonia Bot backward.
- Press the left turn button (LFTTURN) to make a left turn.
- Press the right turn button (RGHTTURN) to make a right turn.
- Release all buttons to stop the Chelonia Bot.
- **Expected Results**
- The Chelonia Bot should respond to button presses accordingly, moving forward, backward, turning left, turning right, and stopping based on your manual input.
- **Additional Information**
- Adjust the motor pins and button pins in the code if you have different hardware configurations.