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Lab 6

Q1. This was simple to solve as we knew we needed to keep the sensor on the edge of the line. We took the measurements of the dark tape, the white board, and the threshold which is where the edge of the tape is. Then we needed to change the turning by using the values collected. There is a task which updates the current color, so we always know the location of the robot on the line. Follow the line adjusts the turn ratio to keep the robot on the edge of the tape. This would cause the robot to swerve back and forth between the light and the dark tape. If the robot speed is too fast, it can lose control and get off the path.

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Q2. Question 2 is like question 1, the only difference is we used desired change instead of a turn ratio. This allows the turns to be smoother and reduce the zig zag motion. We find the error/difference and that will decide the amount of turn. This error will allow the robot to be keep close to the lines edge and this is what reduces the zigzag, by slowly adjusting the turn ratio/desired change.

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