Goal: The goal is to create an obstacle avoiding robot using StateFlow Charts.

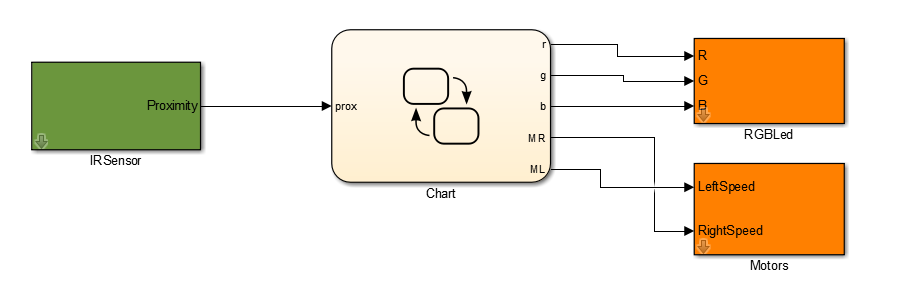
Standards Covered: (f), (i), (j)

Sequence

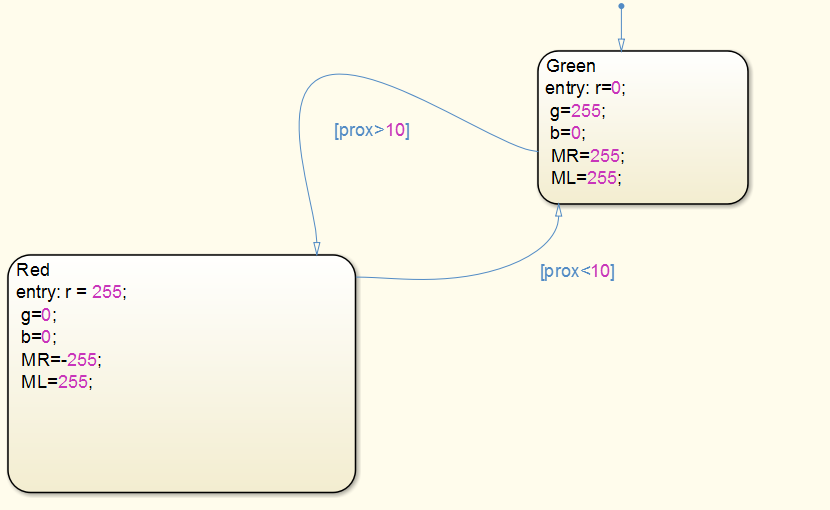
1. Build or reference the below Simulink model *(40 min):*

*“Proximity Lights with Motors (Obstacle Avoidance Robot)”*

Example Model: StateFlowRGBledWithProximityMotors.slx



1. Create the above model in your Simulink platform. The chart should be expanded upon to create an obstacle avoiding robot which also has lights which signal specific types of movement:



1. Students should experiment with changing the values of prox and r,g,b values as well as the speeds for MR and ML in the charts. Each obstacle avoidance robot is shared with the rest of the class to view similarities and differences *(20 min)*

\**Time Buffer 20-30 min depending if model is referenced or built up with students.*

Evaluation:

1. All students have created an obstacle avoiding robot in Simulink.

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