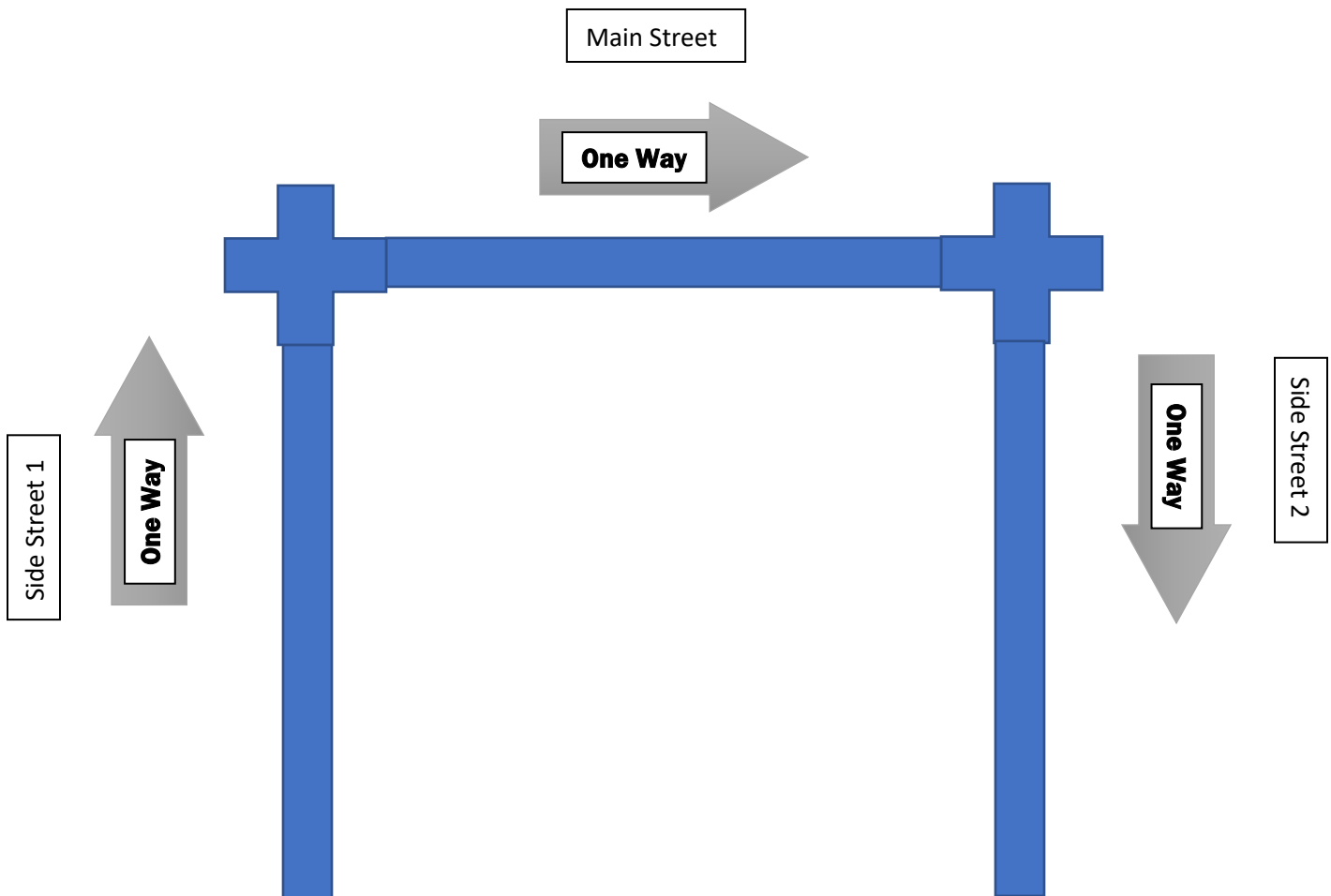Project Traffic Lights

Objective- To install a traffic light control system that will keep traffic moving smoothly. We are to create a two-intersection traffic light system for a small town. Traffic lights are to cycle after staying green for 30 seconds. The yellow light is to stay on for 3 seconds before cycling on to red. The red light is to stay for 2 seconds before turning on the green on the other direction. Both traffic lights for Main ST are to be on at the same time as to maximize flow down Main St. All streets are one way.

Main Street

One Way

Side Street 1

One Way

One Way

Side Street 2

How it works- The traffic lights cycle after staying green for 30 seconds. The yellow light then stays on for 3 seconds before cycling on to red. The red light stays on for 2 seconds before turning on the green in the other direction. Both traffic lights for Main Street are on at the same time to maximize flow down Main St. There is a police station that consist of a button that can be spun around. When you spin it counterclockwise to the most it can turn, the emergency button is activated. If the emergency button is activated when Main Street is green the light will stay green till the emergency button is deactivated. To deactivate the emergency button, you must turn the emergency button clockwise till it can't turn anymore. Once you do this the light system returns to normal. If the emergency button is activated when Main Street is yellow the light will turn green and will stay on green till the emergency button is deactivated. If the emergency button is activated when Main Street and Side Street are red then Main Street will turn green.