

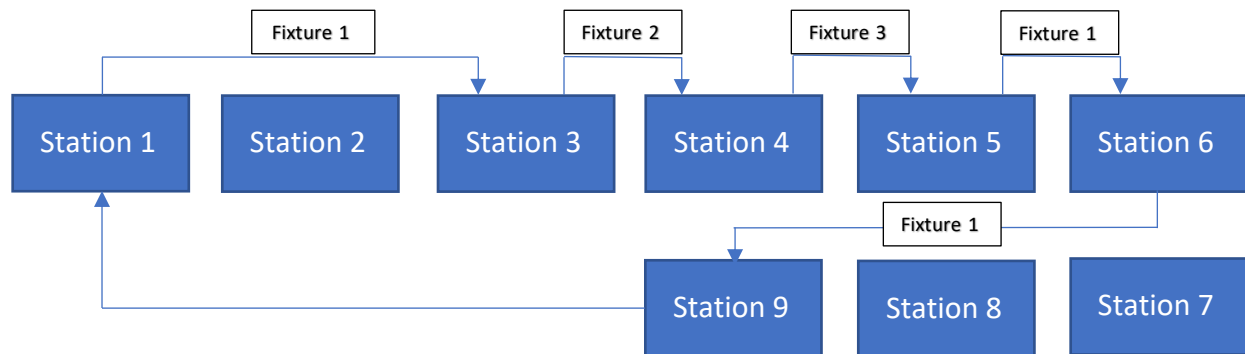
## Capstone Idea #1 – California Forest Wildfires

Every year, in summer, California is suffering forest wildfire in almost every county. And every year increases the number of incidents making busier the fire departments. The fire department has a fire prevention program, but due to the number of fires they needed to work on, this program is backlogged.

We have the opportunity to create a model that can predict fires spots, having the time for preparation of firefighter equipment, and use the prevention program on those spots with a higher probability of wildfire before the summer season.

## Capstone Idea #2 – Production Line

Years ago, I had the opportunity to work in a manufacturing company, and I worked in a production line that was barely completing the daily goal. I performed a time study and identified some improvement opportunities, and one possibility was the fixtures that protect the units from the exterior. The units can not be without a fixture at any moment; also, the fixture is not the same in every process.



The line experienced some problems like downtime in any station for quality issues and need to recalibrate the station, but calibrating can take some time; this provokes to stop production for not having fixture available. The company is looking to know the optimal amount of fixture to continue the operation despite the downtimes or any other issues that provoke to stop the line. This model will help not just the current production line but will be helpful for the others production line.