**Traffic Light Controller Implementation**

Distributed control systems

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# Maps

For this project we were assigned 2 intersections from Cluj-Napoca, Romania, as seen in Figure 1. First Intersection and Figure 2. Second Intersection:

Figure 2. Second Intersection

An aerial view of a crosswalk

Description automatically generated

Figure 1. First Intersection

A screenshot of a map

Description automatically generated

For these we took the directions as seen in Figure 3. Road Directions Overlay

An aerial view of a city

Description automatically generated

Figure 3. Road Directions Overlay

Present as well in Figure 4. Simplified Road Directions in a simplified version.

A drawing of a road with arrows

Description automatically generated

Figure 4. Simplified Road Directions

# Petri Net Design

We then modeled the intersection using Petri Nets:

A diagram of a network

Description automatically generated

For which we have the following: