

ACIC

Intelligent Control of Traffic Flow - Integration

Group
8

Group
11

Group
14

Group
15

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1 Introduction

After finishing our projects we were supposed to integrate them with each other. Throughout this report we will analyse the difficulties and problems that eventually lead to the inability to connect every project.

2 Analysis

2.1 Successes

Groups 11 and 14 were able to succeed integrating their systems, both used a single *I2C* address to communicate between every intersection controller, sending the destination inside the message body.

They also used a version of the specified connection protocol, in the assignment, where instead of sending up to date information regarding the amount of cars that passed through that intersection, for one of the messages sent (2 per period) they sent the information regarding the previous period, and therefore outdated by $\frac{1}{2}Period$.

2.2 Failures

Group 8 was not able to succeed in integrating their system with the remaining groups, mainly due to disagreeing that using a single *I2C* address or sending outdated information respected the protocol established in the project specification.

This resulted in more complex differences between projects, which due to the disagreements were not able to be solved.

Group 15 did not appear in the lab class.

3 Conclusion

Before starting the assignment, every group should have joined together to establish a more concrete protocol based on the original specification. This would have resulted in less dramatic differences in the communication protocols used by each group, therefore allowing them to be fixable within the time-frame of the class.