

# COLORADO SCHOOL OF MINES – EPICS 151

## CALL FOR PROPOSAL SPRING 2017



## RoadX Challenge

### Introduction

Colorado Department of Transportation (CDOT) is partnering with the Colorado Innovation Network (COIN) in launching the RoadX Challenge. “The goal for the RoadX challenge is to solicit innovative technological solutions to protect bicyclists and pedestrians in Colorado.” Nationwide in 2012 there were over 15,000 injuries to bicyclists by motor vehicles [1], and in 2015 in Colorado alone, there were 1,530 pedestrian crashes, 59 of which were fatal. Colorado ranks the second highest in the nation for bike commuters, and safety for these bikers and pedestrians is of paramount importance [2].

This semester’s EPICS project will be to develop solutions to the challenge that ROADX has identified. Details of this competition can be found in [RoadX Rules and Guidelines](#). Five prizes of \$10,000 each will be awarded by ROADX to initial concepts submitted to their Idea Track. **RoadX proposal submission Feb 27<sup>th</sup> is optional and must be a team decision.**

### Proposal Submittal

- Your EPICS grades, as well as the external judging in the end-of-semester competition, are separate and are in no way correlated to your team’s performance in the RoadX online challenge. EPICS has its own set of deliverables.
- Final solutions will be evaluated on:
  - Creativity and degree of effort put forth into the problem-solving process
  - Value offered by the solution (cost versus benefit)
  - Ease of use, technical feasibility, sustainability, and effectiveness (includes safety)
  - Quality of submissions (sophistication of works-like prototype, consideration of stakeholders’ perspectives, depth of report, and degree to which all claims are substantiated).

### Solution requirements

- The solution will address the need to improve the safety of bicyclists and/or pedestrians in Colorado.
- The cost of your working (final) prototype should not exceed \$100, and must demonstrate key functionality and features of your final solution.
- There is no cost limit to the final proposed solution, but your final proposal must demonstrate that the solution cost is commensurate to the value offered.
- Your team’s working prototype may not exceed 2’ in any dimension. **It may not be left on EPICS premises**, other than in the EPICS shop bin claimed by your team.

### References

- [1] Accident Data Center (2016). [Online]. Available <https://accidentdatacenter.com/topic/accidents/accident-type>  
[2] RoadX Bicycle and Pedestrian Challenge (2016). *About RoadX* [Online]. Available <https://www.imagineco.us/en/page/roadx-about-us-en>