



CDIO Academy 2017

University of Calgary

June 18-21, 2017

Project Introduction

- ▶ The question being asked at the 2017 CDIO Academy is:
- ▶ **What is the biggest challenge facing autonomous vehicles, and what may a solution be?**

Competition Format

1. Pre-assignments
2. Academy Design Camp
3. Pitching Competition



Pre-Assignments

- ▶ Weekly, taking place from the end of April - early June
- ▶ Individual blog posts
- ▶ Will help competitors gain background knowledge about autonomous vehicles and their challenges
- ▶ Also includes teamwork assessments
- ▶ Assignments will be checked for completion by Academy volunteers/organizers

Academy Design Camp

- ▶ Begins with icebreaking and team formation
- ▶ Teams will formulate their answer to the project question, using ideation, collaboration, and research
- ▶ Teams will use Lego Mindstorms to create a mock-up or demo of their chosen challenge
- ▶ Finally, teams will use their mock-ups and previous research to put together a persuasive presentation of their answer to the guiding question

Pitching Competition

- ▶ Each team will perform their pitch in front of the Academy teams and judges
- ▶ The winning team will also present to the International CDIO Conference attendees during the conference closing

Evaluation Criteria

- ▶ Relevance to overall design question
- ▶ Justification (evidence and arguments) provided to support argument for the relevance of the challenge identified
- ▶ Demonstrates the Conceive, Design, Implement, and Operate steps
- ▶ Potential for practical application (realistic and degree of practicality and arguments and evidence provided)
- ▶ Practicality - is it a good engineering solution?, benefits and drawbacks
- ▶ Demonstrates deep research into the issue and the consideration of different points of view
- ▶ How effectively was LEGO Mindstorms and other visual aids incorporated in the presentation?
- ▶ Evidence of effective teamwork
- ▶ Creativity and innovation in chosen topic
- ▶ Oral communication skills and presentation aesthetics

Schedule

Sunday June 18

Morning	Welcome, icebreaker, team formation
Afternoon	Introduction to CDIO, Introduction to Lego Mindstorms
Evening	CDIO Reception Event

Monday June 19

Morning	Guest presentations, ideation and brainstorming
Afternoon	Work time, mini-pitch of work done so far
Evening	Dinner event

** Note: the Academy competition begins on Sunday to accommodate the half day trip to Banff on Tuesday.

Schedule

Tuesday June 20

Morning	Presentation tips, work time, 2 nd mini pitch
Afternoon	Visit to Banff
Evening	Dinner in Banff

Wednesday June 21

Morning	Pitch practice time
Afternoon	Academy pitch competition
Evening	Presentation to CDIO Conference attendees (winning team)

Registration

- ▶ Registration coming soon, open until April 24th
- ▶ Limited to 50 participants (max. 5 students per institution)
- ▶ Fee: \$125 CAD, which includes
 - ▶ Tea, coffee, and snacks from Sunday-Wednesday
 - ▶ Lunch from Sunday-Wednesday
 - ▶ Conference bag and name badge
 - ▶ CDIO Academy program
 - ▶ Transportation to and from Banff on Tuesday
 - ▶ Dinner in Banff on Tuesday

Accommodations

- ▶ Yamnuska Hall, on campus at the University of Calgary
- ▶ Residence-style rooms
 - ▶ 1-bedroom: \$75 CAD
 - ▶ 2-bedroom: \$116 CAD - students must know each other
 - ▶ Prices are per night, per room, not including taxes/fees
- ▶ Must be booked by May 17th to secure special rate
- ▶ Booking information will be up on the cdio.ca website in late March

