GUIDEBOOK for ECOCAR MOBILITY CHALLENGE

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BACKGROUND

UWAFT

PREVIOUS COMPETITIONS

- Past Competitions including: Propane Vehicle Challenge, Ethanol Vehicle Challenge, Challenge X, EcoCAR, EcoCAR 2, and EcoCAR 3
- UWAFT has had over 1000 students participate in the team in various roles
- Developed the world's first student built road capable passenger hydrogen fuel cell vehicle.
- Undergraduate and Graduate students from uWaterloo and Wilfrid Laurier University
- Find more information on the team at: http://ecocar3.org/waterloo/about-us/ and

UWAFT

MISSION STATEMENT

We're redefining the world's perception of sustainable mobility through hybrid electrification and intelligent driving technology. Proving that Hybrid means High Performance!

TEAM ORGANIZATION
&
STRUCTURE

UWAFT

WORKSPACES & CONTACT

LOCATIONS:
E5 1011 – Office Bay
E5 1103 – Vehicle Bay

CONTACTS : uwaft.ecocar@gmail.com
Twitter : @UWAFT
Facebook : www.facebook.com/uwaft
Instagram : @theuwaft
Website : uwaft.ca

UWAFT

UWAFT LEADERSHIP

PROJECT MANAGER

Bade Akinsanya

ENGINEERING MANAGER

Derrick Tan

UWAFT

UWAFT

UWAFT LEADERSHIP

Control
System
Modelling
Simulation
(CSMS)

CONTROLS LEADs

Cole Powers

Michael Wu

Jake McGrory

MODELLING AND SIMULATION LEAD

Aidan O'Gorman

Propulsion
Systems
Integration
(PSI)

MECHANICAL LEADs

Vaibhav Patel (V)

Vats Saini

ELECTRICAL LEAD

Ben Davies

UWAFT

UWAFT LEADERSHIP

Connected
Automated
Vehicle
Systems
(CAVs)

SOFTWARE LEADs

Tim Mui

Jack Mo

Jas Basson

Sumeet Kler

BECOMING A MEMBER

UWAFT

UWAFT

HOW DO YOU JOIN?

Do in this order:

1. Join Slack with UW email (uwaftecocar.slack.com)
2. Safety Training & NDA's (See next slide for details)
3. Complete Sub Team Challenge (See leads for details)
4. Attend Workshops (See Slack for announcement)
5. Do projects and present to get on Member Level Board
6. Come to the UWAFT Bay often to learn!

UWAFT

STEPS TO TAKE (**IMPORTANT. If you do this wrong, you have to do it again**)

1. All members must become level 1 safety trained
Requirements **(Courses can be found on learn under SELF REGISTRATION):**
- WHMIS_SCORM
- Knowledge of Electrical Hazards
- Worker Health Safety Awareness

Take screenshots of the completion screen for step 3

2. All new members **MUST** fill out the following documents after completing the safety training:
- Go to this link and download the NDA(**FORMAT : FirstnameLastname_UWAFT_NDA)**
https://drive.google.com/file/d/1pAMGVY5UmX3oQwlD_jF7xTxiU068q-GD/view?usp=sharing

3. Fill in the information in the following google form and **upload safety screenshots from Step 1**, and **upload NDA from Step 2**
https://goo.gl/forms/BKzWT6LUAcqOCM122

4. A confirmation email will be sent out once your information is checked over

UWAFT

STEPS TO TAKE (**IMPORTANT**)

5. If you are interested in doing any hands on work, you also need to get a student machine shop safety card to do any machining work. This can be initiated by going on SELF REGISTRATION on learn and finding the ESMS safety training course. (Required for **mechanical** team only)

KEEPING UP WITH THE TEAM

1. Sign up for Slack: **uwaftecocar.slack.com** (use uwaterloo email)

2. Follow us on social media outlets
- Twitter : @UWAFT
- Facebook : www.facebook.com/uwaft
- Instagram : @uwaft

3. Come to our general meetings
- Every Monday 6-7 PM
- E5 2004
- Stay longer and talk to the leads!

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WHY YOU SHOULD JOIN

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SKILL DEVELOPMENT

Software skills:

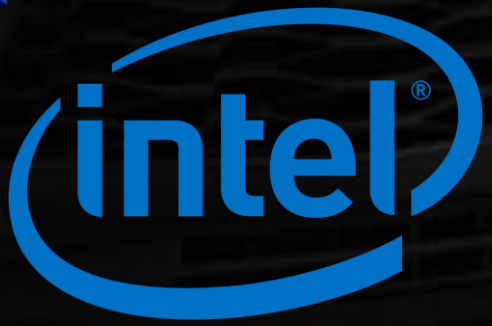
- NX - CAD
- Hypermesh - FEA
- Matlab Simulink - Modelling
- dSPACE - Controls
- Flowmaster – Thermal Management
- ADAMS – Vehicle Dynamics
- Altium – Building PCB & schematics
- MS Project – Project Management

Interpersonal skills:

- Problem Solving
- Analytical
- Researching
- Leadership
- Team work
- Working under pressure
- Improvising
- Time management

By getting involved with the team you have the potential in developing all these software and interpersonal skills to make you a more competitive candidate in the job market.

WORK WITH AND MEET PROFESSIONALS



UWAFT

UWAFT MEMBER & SAFETY LEVEL

UWAFT

MEMBER LEVELS

Level 1: Complete all safety courses on learn & complete design challenge

Level 2: Present a 5 minute project you worked on + Complete lvl. 2 safety training

Level 3: Present a 10 minute presentation on another project or continued project + complete lvl. 3 safety training

Level 4: Host a 40 minute workshop + complete lvl. 4 safety training (appointed by lead)

Level 5: Become a team lead

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VPN , SERVER &CONFLUENCE

UWAFT

UWAFT SERVER

Note: you must complete the safety training and signed NDAs or you cannot authenticate with the server.

To connect to the server:

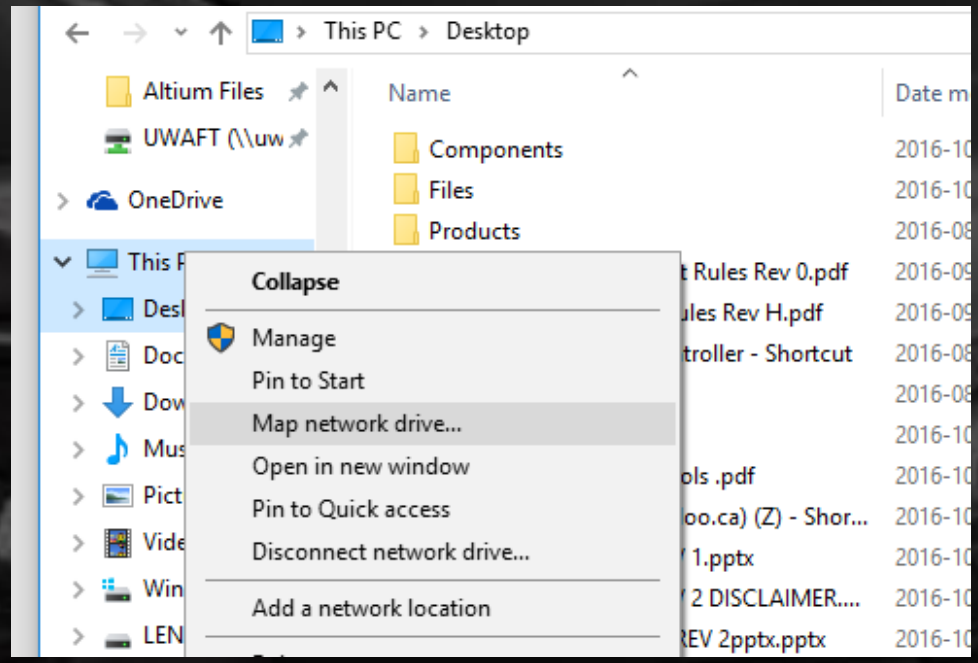
1: map network drive

2: network location is \\uwaft01.uwaterloo.ca\uwaft

3: After a little bit of time you will be prompted to supply your user id and password. Use your UWaterloo credentials as follows:

Username: NEXUS\uwaterlooID

Password: UWaterloo Password



UWAFT VPN

In order to connect to the UWAFT server, if you are not on campus you will need to VPN in

https://uwaterloo.ca/information-systems-technology/services/virtual-private-network-vpn/about-virtual-private-network-vpn

Follow the instructions from the above link

Look for: Install the VPN client for Windows and Internet Explorer

CONFLUENCE

UWAFT uses Confluence as our primary means of documentation

Complete the “Becoming a Member Section” of this Guidebook in order to gain access!

On Confluence you will find:

1: Instructions on how to install software
2: On boarding Material
3: Workshop and Tutorial Content
4: Information on our team vehicle
5: Useful links to other resources

Username: uwaterlooID
Password: UWaterloo Password

NOTE* : You must VPN into the university’s network when off campus

(wiki.uwaterloo.ca Follow this link to our confluence)

RESOURCES

UWAFT

LEARNING RESOURCES

Training Resources for the following Subteams can be found below:

CAV: https://docs.google.com/document/d/1fn1COEQoEkDAiYjm7tNqnYNvHL6tse0TRTv9d6oHQmE/edit?usp=sharing

Controls and SMS: https://drive.google.com/drive/folders/0B0cf-RvbdBtPSW9GTWVON0RqbkU

Electrical : https://drive.google.com/open?id=1uj5jBpkj3Hi74xJ3P8hmHz42wJhGk6QIjm79MZUGb3g

Mechanical : https://docs.google.com/document/d/15qM6UQ6TxYrcNQXse1JJTiAjYFFSKzlLp2_gJ4mFT7A/edit?usp=sharing

Project Management (WIP): https://drive.google.com/open?id=1XBfWpHfozgiBNf3MlMohSG9f3MCm_JQbyHzGg_VrXUo

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