

## MINI-RACECAR FOR EDUCATORS COURSE - 2021



### Objectives:

This course is for educators who are passionate about bringing project-based learning to their students, and need curriculum to introduce Python programming, robotics, and machine learning concepts. This course will take a 4 week student course and compress it into 4 Saturdays to give educators both the 'how-to' and experience to run the course with their students.

### Requirements:

- 1) Background in computer science, robotics or programming
- 2) Experience in Python
- 3) Experience in Linux (preferred)

### Outcome:

Familiarity with the mini-RACECAR curriculum and overview of the requirements to teach middle or high school students as a project-based course.

### Class Schedule (4 weeks, Saturdays, 8am to 12pm PST)

January 23, 30, February 6 and 13, 2021

**You will need a laptop, a chromebook will not work for these lessons.**

### Topics:

- Download all the software in class and take them through those steps plus troubleshooting
- Go over the main sensors that are used both in the simulation and the real life cars
- Go through each jupyter notebook and lab and highlight ideas and things to teach.
- Go through time trials and grand prix code.
- The teachers will be able to follow along manually if they have a Macbook or Windows. If they have a Linux or Chromebook they will not be able to download some of the material for the class but are still welcome to attend and just listen.
- Familiarize them with Python and terminal.

### Sign Up for the class at the following link:

[https://mit-bwsi.formstack.com/forms/bwsi\\_rms\\_for\\_educators\\_2021](https://mit-bwsi.formstack.com/forms/bwsi_rms_for_educators_2021)



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