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## Beat this Pandemic Together Tree Programming Course Series - 3rd Course Python Mini Projects

Brought to you by Fee Robotics Team - VRC 99909A Rising Phoenix

- 2017 VEX Robotics World Championship Excellence Award (the highest award)
- 2016 and 2019 VEX Robotics World Championship Design Award
- 2018 VEX Robotics World Championship Create Award
- 2016, 2018, and 2019 VEX IQ Robotics Virginia State Champion

Join us on the "Team 999A Rising Phoenix" YouTube Channel every Tuesday at 5:00 PM for free programming classes starting January 5th, 2021! (Age 8 - 14)

## **Class Syllabus**

- Now that we have learned the basics of programming, the real challenge is to build something useful/fun with them, like games, web app, and IoT. We don't want to reinvent the wheel by building everything from scratch. There are thousands of Python packages/modules we can leverage. These resources are powerful but intimidating at times. We will navigate that journey together by building small but real fun Python projects:
  - Start with a basic tic-tac-toe game with a simple GUI
  - Reintroduce Python class/object and OOP concepts
  - Build a Pong game using Python class/object
  - More real fun Python mini projects
- Github repository for course materials: https://github.com/CapitalRoboticsClub/Programming\_Courses/tree/master/Python\_MiniProjects

To brush up on your Python basics, check out our YouTube channel: <a href="https://www.youtube.com/watch?v=jP1xCxHZMlg&list=PLjRJ1Y9LeY1A0uAhvlGMnnu1ymorRjciR">https://www.youtube.com/watch?v=jP1xCxHZMlg&list=PLjRJ1Y9LeY1A0uAhvlGMnnu1ymorRjciR</a>
To practice your Python skills with CodingBat, check out our YouTube channel: <a href="https://www.youtube.com/watch?v=qroPNgwMuYw&list=PLjRJ1Y9LeY1DxzWqSE-H17sl08aP56w9j">https://www.youtube.com/watch?v=qroPNgwMuYw&list=PLjRJ1Y9LeY1DxzWqSE-H17sl08aP56w9j</a>

## **Programing Course Series**

- 1. Python Basics (12 lessons completed)
- 2. Practice Python with CodingBat.com (20 lessons completed)
- 3. Mini Python Projects (current course)
- 4. Java Foundations
- 5. RobotC Intro (Programming language for Vex IQ Robotics Competition)
- 6. C++ (PROS) intro (Programming language for VRC Robotics Competition)
- 7. Fusion 360 (CAD design) + Cura (Slicer) + 3D printing