# 华夏中文学校小游戏班

cool pictures and designs with the Artist!

# 课程介绍

ine-block:



Box Island

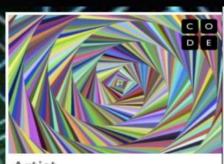
 Take a trip on Box Island and collect all the stars! Box Island is a beautiful mobile coding game that takes kids on an exciting adventure on the charming island.

Let's use code to join Anna and Elsa as they explore the magic and beauty of ice. You will create snowflakes and patterns as you ice-skate and make a winter wonderland that you can then share with your friends!



Code with Anna and Elsa

Use drag-and-drop programming to make your own Flappy Bird game, and customize it to look different (Flappy Shark, Flappy Santa, whatever).



Bring some of your favorite Cartoon Network characters to life by coding your own animation. Add more characters and make them jump, fly, and talk.





招生对象

1-3年级



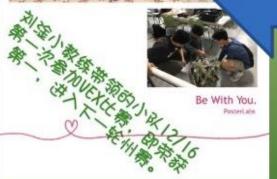




# VEX机器人课

#### 圣诞机器人





华夏总校的 VEX机器人课 始开于2016年 春季, 刘淦首 任教练。VEX 机器人大赛, 是一项旨在通 过推广教育型 机器人,要求 参赛队伍自行 设计制作机器 人并进行编程 自动遥控的有 技术含量又有 魅力的项目。

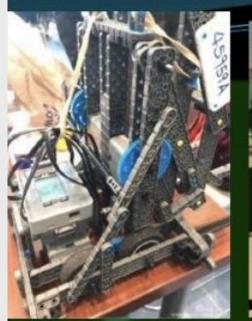
左图是2017年 华夏机器人队 第一次参加地 区赛的战车





左上图是2018年赛季 中,华夏机器人队的 选手在比赛进行中。 VEX机器人比赛讲究 的不仅是机器人设计 的技巧操控机器人的 技能,更是一个锻炼 赛手们的合作精神, 仅仅1分钟的赛时, 要两个队友先后配合。 多轮的比赛中还要和 不期而遇的其他队合 作, 即会是对乎又会 是帮手。

左下图2019年新队伍 在王淑杰老师和助理 小教练Evan Gao的带 领下于年初第一次参 加比赛





一组暑期学生在家上网课的情景

2019年初的华夏机器人队在赛季比赛中,华夏机器人战队的番号是永远的 45959A,但我们又有了新的队伍。

世界机器人大赛每年四月公布主题,预备参赛的队伍根据主题设计自己的机器人,比赛从九月拉开帷幕,一场一级地从地区到州里到全美,最后到世界级。

华夏机器人队伍在过去的比赛中未必走得很远,但孩子们投入了学习,在比赛中增长了见识。有的同学由此深爱上了这个富有挑战的有创造力的项目。

2021-2022年度世界级VES机器人大赛的比赛主题已经出来了,2021年秋季学期我们开设实体课程,欢迎新老学生一起,通过学习参加比赛实践。









# Introduction to 3D Design

3D设计入门

Class Outline (课程大纲)

## Dillon Ding (丁漠森)

Who is majoring in mechanical engineering in UT Austin, discovered his passion for 3D design ever since his middle school years when one of his teachers introduced it to him, and he wants to share this passion with his students. He is hoping this course will get them excited to learn about 3D design software, especially if becoming an engineer is something they're interested in. The biggest takeaway he wants his students to have is to always be imaginative and find creative ways to solve problems.

## Class Objectives (课程宗旨)

#### Students will(学生将学到):

• Use computer software to create 3D models of objects from scratch (starting with basic geometric shapes and then more complex objects as the class progresses)

使用电脑软件设计<sub>3</sub>D实物模型,从头到尾全过程(从基本的几何形状开始,然后随着课程的进展而增加复杂度)

- Understand common functions of the software and apply them to the design process 了解软件的主要功能,并学会如何在设计中使用
- Develop basic sketching skills
   培养基本的素描技巧
- Learn how to use dimensions when designing objects 了解在设计实物时如何使用维度尺寸
- Build spatial visualization skills掌握空间构思技能

## Class Design (课程设计)

Level of Difficulty: Beginner/Intermediate

难度: 初学者/中级

**Prerequisites:** Basic Knowledge of Windows Operating System

预备知识: Windows 操作系统基本常识

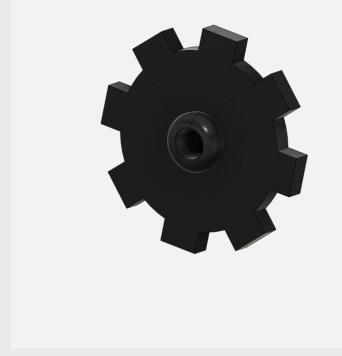
**Software Used:** Autodesk Fusion 360 (provided free by Instructor)

软件: Autodesk Fusion 36o (由老师免费提供)

Final Project: Design a 3D object of Choice

毕业项目: 设计出一个自选3D实物模型

Example Object (实物模型例子)





## 华夏中文学校Java课程简介

Java language course is designed for student start from scratch, learn from language basic to OOP programing. Not only teach students how to write Java program, also teach them how to write good program. This class will have new student class, Java continu-1, Java continue-2, and more. Try to build skill on user interface, business logic, database, unit test, logging, documentation, and product deployment. Very important, instructor will help each student write their own Java Notebook which include everything they have learned in the class, for future reference.

This course does NOT need more math background, it suites for any age of student. Actually, start learn computer language can be very early age of Operator students.

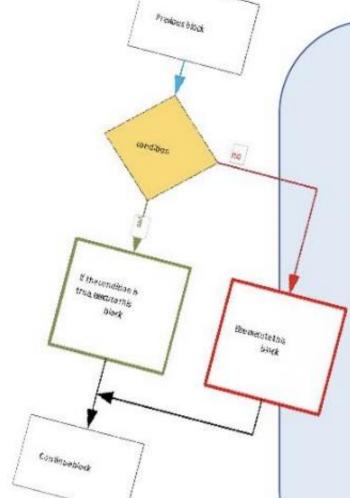
Programming Language Basic

Execution

LOOP

Control

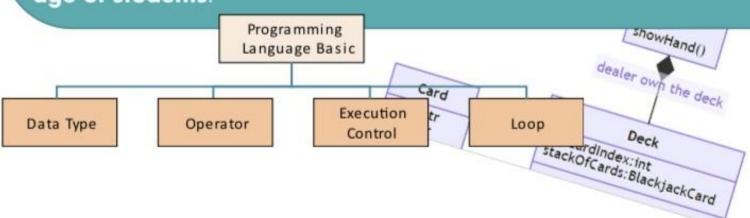
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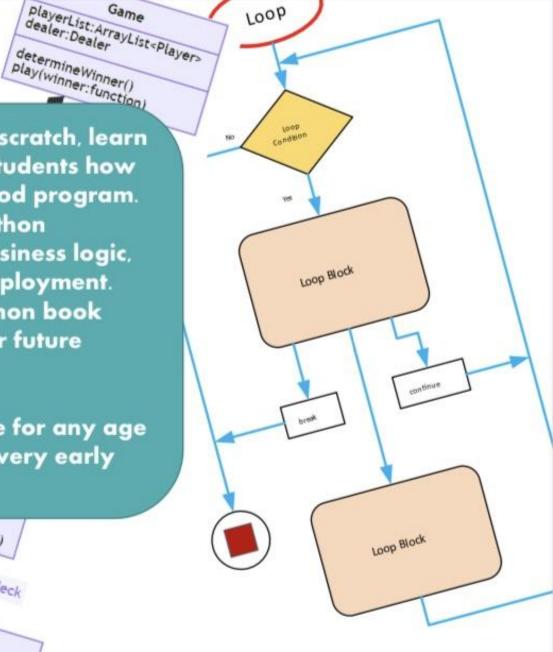


## 华夏中文学校 Python 编程课程简介

Python language course is designed for student start from scratch, learn from language basic to OOP programing. Not only teach students how to write python program, also teach them how to write good program. This class will have new student class, python continu-1, python continue-2, and more. Try to build skill on user interface, business logic, database, unittest, logging, documentation, and product deployment. Very important, will help each student write their own Python book which include everything they have learned in the class, for future reference.

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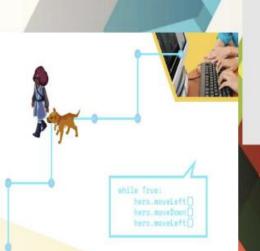




determineWinner()

# Python computer science & game design I

### **Hybrid – F2F or Online**



01:30-03:00AM

recommended 4<sup>th</sup> grade or higher.

No experience required.



Computer Science that Captivates
A coding adventure for students.
An introduction to Python
programming.



```
if distance < 3:
hero.castIllusionMist(nearestEnemy)
hero.sneskRight(2)

if distance > 2:
hero.soveRight(2)

in distance > 2:
hero.soveRight(2)

in nearestEnemy = hero.findWearestEnemy()
id distance = hero.gstDistanceTo(nearestEnemy)

if distance < 3:
hero.castIllusionMist(nearestEnemy)

if distance > 2:
hero.moveRight(2)

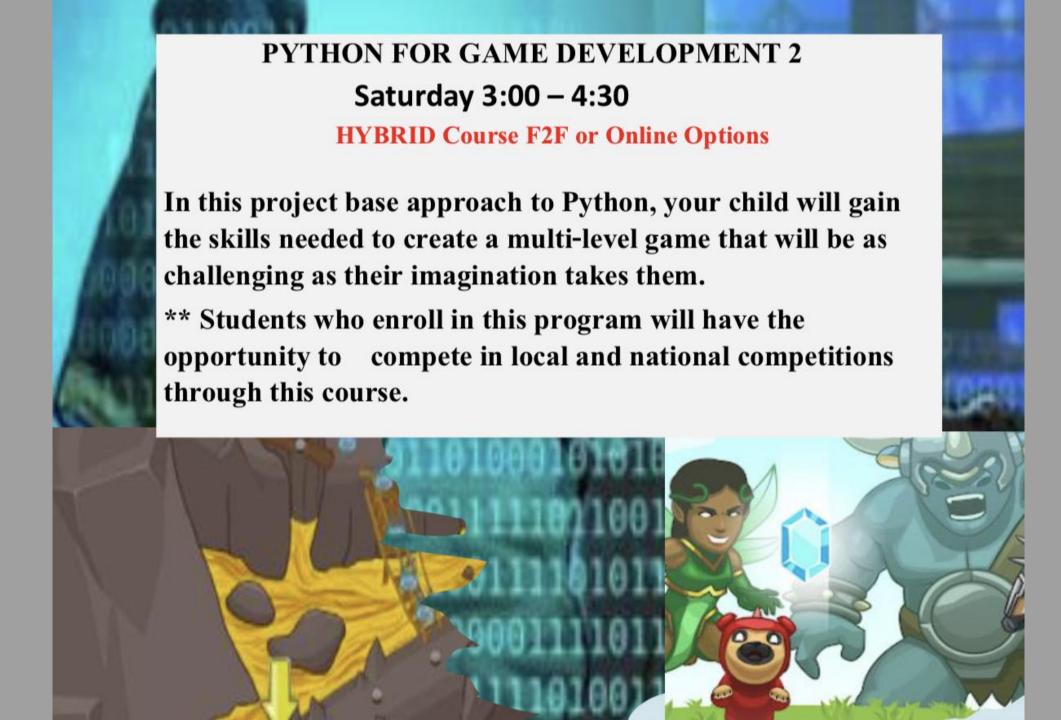
if distance > 2:
hero.sneskRight(2)

if distance > 2:
hero.soveRight(2)

hero.soveRight(2)
```

Coaches can monitor student progress on an ongoing basis, get valuable information on their performance, and immediately identify whether interventions are needed.





```
steering = -100;
if (steering > 0 && !isLeft)
  factor = (1 - steering / 50.0);
else if (steering < 0 && isLeft)
  factor = (steering / 50.0 + 1);
return (int)(factor * speed * 7.2);</pre>
```



# Virtual Robotic Hybrid

4:30 – 6:00 p.m.

#### Face to Face & Online

In our Virtual Robotic Hybrid course students will experience multiple platforms to program robots. The goal of the course is to transition students from block coding to python line coding of these amazing online robots. These simulation platforms put students in realistic situations requiring a mastery of coding skills for success.

These skills can be applied to opportunities to compete in competition against other students locally and nationally.

