DR. MCNALLY

ROBOTICS CLASS & STEAM COMPETITION

APRIL 6 – 17

WORK AT YOUR OWN PACE – No Assignments will be due until May 1.

OPTION 1 - RVW – LEVEL BUILDER PROJECT - *NOTE -- You should have received an invitation to join this "TEAM" on your SCHOOL EMAIL. Please check your email and post on TEAMS.*

RVW is a software that is a little bit like Mindcraft, in which you can build your own world. This will be an ongoing project and you are advised to work at your own pace to make the BEST RVW project possible (further guidance will be forthcoming). Eventually, we will share our levels with each other and have a friendly competition to see who can create the most amazing project. Also, depending on how much interest exists, you will receive instructions on how to program a robot within your level, and we will have another competition (using the best level or levels) , and see who can win a programming contest in RVW. You should have received an invitation to join this "TEAM" on your SCHOOL EMAIL. Please join the team for more thorough instructions. GOOD LUCK!!!

STEPS – Follow this links IN ORDER for best results.

1. McNally Video 1 - https://www.youtube.com/watch?v=_vYurRprPPs
2. Download and Install RobotC - http://www.robotc.net/download/lego/
3. RVW: Level Builder Part 1 – Overview - https://www.youtube.com/watch?v=Hlh5Dd-KTJw
4. RVW Level Builder Tutorials
   - https://www.youtube.com/playlist?list=PL2x9NEZfxJkf1I4yW7zseyJgV4ngv_9TV
5. RVW Model Importer Tutorials
   - https://www.youtube.com/playlist?list=PL2x9NEZfxJkeHqaROBv9dfvOi28kU9EQ8

IMPORTANT -- RobotC for MAC - How to install ROBOTC on a MAC

ROBOTC will work on a Mac with any of the Windows Virtualization/Emulation software packages that are available, example software includes Parallels, VM Ware Fusion, Boot Camp and Virtual Box.

For more information on various Virtualization software:

- Bootcamp
- VMWare Fusion
- Parallels Desktop

OPTION 2 - **Intro to JS: Drawing & Animation.**

https://www.khanacademy.org/computing/computer-programming - Use this link to go to a course offered by CODE.ORG. I recommend that you complete the lessons in **Intro to JS: Drawing & Animation.** This is a great introduction to JavaScript, and the tutorials are the most user-friendly I have ever seen. Plus it's fun. You will learn how to use computer programming to create artwork, and even animations. Work at your own pace and complete as many lessons as you wish. You can also create a free account which will help you keep track of their progress.

OPTION 3 -- 3D DRAWING IN ONSHAPE ---

https://www.youtube.com/playlist?list=PLvjHub-Rig3ZkIBhCPqwNPVTB-80VWZXQ - Alternatively, use the tutorials on this page to work on 3D drawings in OnShape. If you've already done some of these lessons, you may pick up wherever you left off, or use what you already know to explore the software more deeply and create a more complex project of your own choosing. Depending on how big or complicated it is, we can print it when you get back to school. Note - for those students who either haven't done any work in OnShape, or who forget how to get to the website, it can be found at https://www.onshape.com/ The process is pretty simple - watch the videos and do the work in OnShape as you go along.