Fun with Robots - Overview.

Students have had a lot of fun playing with robots, and some have shared their experiences with Ying Chen, Yaya Lu, and Graeme Faulkner, who have been lucky enough to assist them between the mid 1980s and now. We have put some of the experiences of our middle-school students together, both as activities, and as courses in several websites.

https://www.DrG2.com contains links to free downloadable pdf eBooklets that are overviews of some of our various "Absolute Beginner Build and Code" tutorials. The "LEGO EV3" and "Fusion" tutorials have been well tested by students over the years. The "LEGO Robot Inventor" tutorials are our most recent tutorials, which are slowly being added when we can find time.

<u>https://www.DrG4.net</u> contains "LEGO Robot Inventor" tutorials in a Weebly-based website. However since Weebly has been purchased and is not being developed, new tutorials will appears as extra tutorials in eBooklets on https://www.DrG2.com.

https://www.DrGrae.me acts as an index to our free tutorials using the LEGO EV3-G, LEGO NXT-G, Modern Robotics/Boxlight Raspberry-Pi based Fusion robot using Blockly, and a Blockly-to-Python conversion course for the Fusion robot. If you wish to be notified when new tutorials have been added, you can sign up to a monthly-update email in the http://www.DrG2.com web site. (Note: we need an email address, but we keep it private). This website was built using WordPress, which has proven agonizingly slow. Hence, new tutorials are being made available via eBooklets in the much faster https://www.DrG2.com

http://www.DrGraeme.org is an older website containing some of the earlier versions of LEGO EV3-G tutorials. It is rarely updated these days, except to correct links. It was built using Wix, and while it was much faster than my WordPress website, it was still substantially slower than my DrG2.com website. Hence any new or updated EV3 tutorials will appears as updated eBooklets in https://www.DrG2.com

http://www.DrGraeme.net is an even older website that contains a variety of individual activities for the LEGO NXT-G robot. This site was started in 2006 when facilities for web production were much more primitive, and it shows! (3) It was built using Microsoft's marvelous Expression Web software, which I wish Microsoft had updated. (3) The site also contains some information about early RoboCup competitions.

http://www.DocGraeme.com was crated at the request of teacher/mentors who wanted the LEGO NXT-G tutorials arranged in a course. It contains a selection of the tutorials from DrGraeme.net, arranged in a course format. Since these excellent sets are so rarely available now, there will probably be no further work on this web site, unless there is an enormous demand! ③

Chats:

Even though we have used most of these tutorials with many middle school students over the last decade, we are fallible, and there could still some things in the tutorials that are puzzling. This website, http://www.DrG2.com was initially set up to meet the request of some teachers who wanted to be able to have chats about any problems they might find with these Robot tutorials. Booked Chats are not currently available, but leave a request at the web site if you want to arrange a chat.

Earliest STEM Robot

The very earliest tutorials we ran were with the world's first commercially produced educational robot, Allan Branch's Tasman Turtle, produced here in Tasmania from 1979 onwards, and sold worldwide.



Graeme taught using this robot during the 1980s, using Logo. Unfortunately, the lessons from this period have not survived. Neither has the virtual environment that imitated the Tasman Turtle that Graeme wrote to teach Pascal at University level. However, using it was also good fun! (3)

We offer these free LEGO NXT, LEGO EV3, LEGO Robot Inventor and BoxLight Fusion tutorials in the hope you will find them useful at the very beginning of your robotic journey...

Our Personal Backgrounds

You can see a comment on these at: https://www.udemy.com/course/fun-with-beginner-lego-mindstorms-ev3-robotics/ and click on "Instructors".

Enjoy!

Ying Chen, Yaya Lu, Graeme Faulkner.