Real-Time Project SS 16 Home

This project is offered as MSP1101: Masterprojekt - Echtzeitsysteme/Eingebettete Systeme.

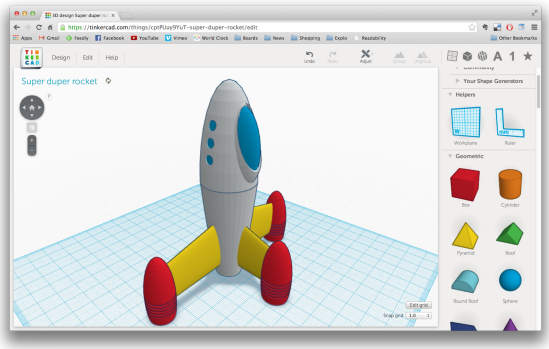
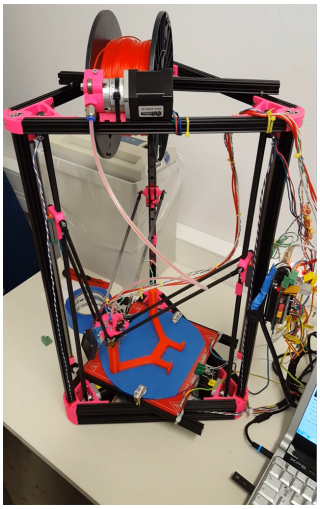
What is this whole Wiki thing?

- It's the place where we post important information on the practical, such as due dates and similar information.
- It's also the place where we post tutorials. You will spend the first part of the practical working through the tutorials before starting your individual projects.
- And finally, it's the place where you will document their project.

About the Real-Time Project SS 16

The goal of this project is to plan, develop and build a miniature version (true to scale) of the lighthouse project employed during the 350 years celebration of the Kiel University. The lighthouse project deployed controllable LED arrays to all offices to light the whole highriser in a custom way. While several parts of the actual highriser may be build in an abstract way, the actual topology of your approach should also work with the real life version of the highriser. The project addresses different system design aspects:

Project Aspects

	Description	Example
Planing	To ensure the success of your project you should carefully plan your approach. Your project schedule will affect all subsequent phases (3D Printing, Circuits, Assembling and Software Design). You need to keep costs at a minimum and delivery times in mind.	 TinkerCAD (Image from http://blog.123dapp.com/)
3D Printing	You are going to 3D print the miniature version of the highriser. Your task is to design a modular version of one floor that you are able to print in the available 3D printer. Use the modular floors to build your personal version of the CAU highriser.	 3D Printer (Arnd Plumhoff, CAP 4, R1111)

Important Dates

Date	Room	Appointment
April 12th, 2016 09: 45am	R1115 CAP4	Kick-off
April 22th, 2016 10: 00am	R1115 CAP4	Proposal Talks
Mi April 27th, 2016 12: 00am	LMS2 - R.Ü2/K	µC Lecture
Tu May 3nd, 2016 10: 00am	LMS2 - R.Ü2/K	Breadboard Practice
Mi May 4th, 2016 12: 00am	LMS2 - R.Ü2/K	PCB Layout Lecture
Tu May 10th, 2016 10: 00am	LMS2 - R.Ü2/K	µC Programming Practice

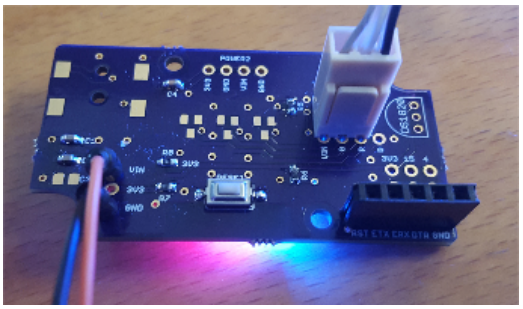
Recent space activity

Recently Updated

As you and your team create content this area will fill up and display the latest updates.

Space contributors

- Steven Smyth (2969 days ago)

Circuit Design	To control the lights deployed in each office you will design your own controller (interface: WLAN or LAN). The controller topology will most likely be an abstract one, however, the design should be realistic. The controller boards will be manufactured professionally and you will solder the components yourselves.	 LED Controller (Ulf Rüegg, CAP 4, R1111)
Assembling	Finally, you must assemble all your parts and build the miniature lighthouse.	
Software Design	You will create an API to control the lighthouse and use it as demonstrator.	

To Go Further

- Real-Time Project SS 15 Home: Real-Time and Embedded Systems Project