

Sensorlab Quick Reference

Compile for iris	<code>make iris</code>
Compile for TOSSIM	<code>make iris sim</code>
Compile for iris and install with ID 0	<code>make iris install.0 mib520,/dev/ttyUSB0</code>
Only install on iris mote with ID 1 (no compilation)	<code>make iris reinstall.1 mib520,/dev/ttyUSB0</code>
Make a zip archive of folders	<code>zip -r YourFileName.zip \$HOME/Folder1/ Folder2/ ...</code>
Listen for serial communication from mote	<code>java net.tinyos.tools.Listen -comm serial@/dev/ttyUSB1:iris</code>
Listen for printf serial communication from mote	<code>java net.tinyos.tools.PrintfClient -comm serial@/dev/ttyUSB1:iris</code>

Interfaces (not comprehensive, but helpful)

<i>Component</i>	<i>Interface</i>	<i>Note</i>
<code>new TimerMilliC()</code>	<code>Timer<TMilli></code>	Multiple instance possible
<code>LedsC</code>	<code>Leds</code>	
<code>MainC (MainC.Boot)</code>	<code>Boot</code>	
<code>new AMSenderC(NET_ID)</code>	<code>AMSend</code>	
<code>new AMSenderC(NET_ID)</code>	<code>AMPacket</code>	AMReceiverC might work
<code>new AMSenderC(NET_ID)</code>	<code>Packet</code>	AMReceiverC might work
<code>new AMReceiverC(NET_ID)</code>	<code>Receive</code>	
<code>ActiveMessageC</code>	<code>SplitControl</code>	
<code>ActiveMessageC</code>	<code>AMPacket</code>	
<code>ActiveMessageC</code>	<code>Packet</code>	
<code>new Accel202C().X_Axis / Y_Axis</code>	<code>Read<uint16_t></code>	MTS400 sensor
<code>new Intersema5534C().Intersema</code>	<code>Intersema</code>	MTS400 sensor
<code>new SensirionSht11C().Temperature</code>	<code>Read<uint16_t></code>	MTS400 sensor
<code>new SensirionSht11C().Humidity</code>	<code>Read<uint16_t></code>	MTS400 sensor
<code>new Taos2550C().VisibleLight</code>	<code>Read<uint8_t></code>	MTS400 sensor
<code>new Taos2550C().InfraredLight</code>	<code>Read<uint8_t></code>	MTS400 sensor

Links

http://sensorlab.informatik.uni-goettingen.de/	Lab website
https://user.informatik.uni-goettingen.de/~sensorlab/Lab_Content	Downloads
http://tinyos.stanford.edu/tinyos-wiki/	TinyOS wiki
http://www.btnode.ethz.ch/static_docs/tinyos-2.x/nesdoc/iris/	TinyOS API docs
https://doc.informatik.uni-goettingen.de/wiki/index.php/SL:Introduction	Sensorlab wiki

Course requirements

- Send reports for lab 1-5 and, if you are not an ITIS student, one of the other labs (the choice is yours) to the email address listed at the bottom. The submitted reports may be checked using a plagiarism detection system. (Deadline: 2016-07-24 24:00)
 - Think up and write your own answers.
 - If you have to quote something, remember to **properly give citations**. Plagiarism may lead to reports being rated with zero points. If this occurs in two or more lab reports, all reports may be rated with zero points.
 - Write your **own** report. Do **not** work in groups for this.
 - Include source code for the labs as an archive, **not** inside a report document (e.g. PDF).
 - Please run `make clean` or delete the `build/` folders before you archive your source to make the archive smaller.
 - Please send all reports in **one bundle** at the end of the week.
 - If you encounter issues (compiler errors etc.) during one of advanced labs, feel free to ask for help, but also try to solve them on your own! It is part of the assignments.
 - If something doesn't work out in the end, still document what you have done.
 - Format of the lab report (there's a template on the website):
 - Cover page: Lab number, name, university, matriculation number.
 - Introduction: Paragraph, $\frac{1}{4}$ to $\frac{1}{2}$ of a page.
 - Questions & Assignments: All questions/assignments with number. Send source in an archive file.
 - Lessons Learned & Conclusion: $\frac{1}{2}$ to 1 page.
 - References, if needed.
- Project work at the end of the course. (Deadline: 2016-09-18 24:00)
 - You can use one the freely chosen lab as an inspiration. A list of available hardware can be found on the wiki.
 - Working in groups of two is recommended, but working alone or in a bigger group is okay too.
 - However: If you work in a bigger group, you have to build a bigger project!
 - Remember to properly give citations if you quote anything.
 - **Four required deliverables for the project:**
 - Full, buildable source code in an archive.
 - Poster as PDF (A0 or A1). Since it is a poster, try to avoid long texts and make it concise.
 - You do **not** have to print it.
 - Project report (about 15 pages). Include your names and matriculation numbers on the title page. For the structure, follow the usual paper form: Abstract, introduction, related works, methodology / implementation / evaluation, results, conclusions and future works.
 - Video presentation. Please do not send a huge file via email! Instead, send a download link, an unlisted YouTube link or arrange some other way of transferring the file.
- You can find links to logos for use in reports/posters/etc. in the studIP forum.

Other information

- Send everything to: Benjamin Leiding <benjamin.leiding@stud.uni-goettingen.de>
- **Make sure to add [SLS16] to the subject line of your email!**
- Login data to download from the sensorlab website:
 - Username: course
 - Password: slsummer16
 - URL: https://user.informatik.uni-goettingen.de/~sensorlab/Lab_Content