Nordic Semiconductor

Course Agenda

Tuesday, October 8th				
		Topic	Description	Duration(mins)
17:00	17:30	Registration and Pizza	Course participants register, get the nRF52840 DK+ servo + sensor + jumper cables and we eat pizza.	30
17:30	18:00	Introduction to Nordic Semiconductor, course agenda and nRF52840 intro	A short presentation of Nordic Semiconductor ASA as a company and a quick walkthrough of the course agenda.	30
18:00	18:30	Introduction to the nRF52840 DK	Introduction to the nRF52840 DK and it's features	30
18:30	18:45	Break	-	15
18:45	19:15	Walk through the Hands-on	What will we do in this course	30
19:15	19:30	Introduction to VS Code	Quick intro to VSC: Building projects, flashing the nRF52, modifying build parameters, debugging	15
19:30	20:00	Start working with the Hands-on	Start creating our project for the nRF52840	90
20:00	20:30			
20:30	21:00			

Course Agenda

		Topic	Description	Duration(mins)
Wednsday, October 9th				
17:00	17:30	Pizza	Eating Pizza	30
17:30	18:00	SoftDevice Controller Introduction	Short introduction to the Bluetooth Low Energy stack	30
18:00	19:00	Bluetooth Low Energy(BLE) Hands-on with the nRF52840	Start working on the Bluetooth Low Energy part of the Hands-on	60
18:30	19:00			
19:00	19:15	Nordic Tools	Introduction to Nordic Development tools	15
19:15	19:30	Break	-	15
19:30	20:00	Bluetooth Low Energy(BLE) Hands-on with the nRF52840	Implement event handling for Bluetooth Low Energy Events	90
20:00	20:30			
20:30	21:00			

Course Agenda

		Topic	Description	Duration(mins)
Thursday, October 10th				
17:00	17:30	Pizza	Eating Pizza	30
17:30	18:00	BLE and servo motor Hands-on exercize	Roundup: Work on whatever you have left of the Hands-on *(Take breaks as you need)*	180
18:00	18:30			
18:30	19:00			
19:00	19:30			
19:30	20:00			
20:00	20:30			
20:30	21:00	Kahoot Quiz	Kahoot Quiz	30

Nordic Semiconductor

A brief overview of Nordic Semiconductor

- Founded in 1983, Headquartered in Norway
- 1450+ employees
- R&D in Norway, Finland, Poland, Sweden, UK, India, Denmark and the US
- Publicly listed in Norway under the ticker OBX:NOD
- Key partners: TSMC, AMKOR, ASE

- Fabless semiconductor company - specialized in ULP wireless connectivity and embedded processing for IoT

- Leading short range connectivity market with Bluetooth LE and Thread/Zigbee

- Low power cellular IoT with LTE-M and NB-IoT technologies

- Expanding into Wi-Fi 6 IoT market with new device family
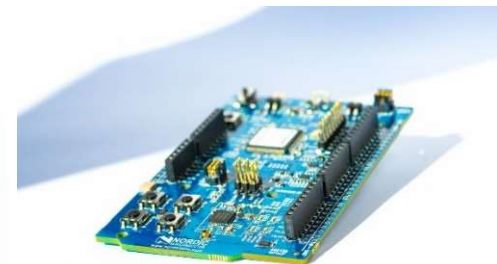
A brief overview of Nordic Semiconductor

- Embedded software
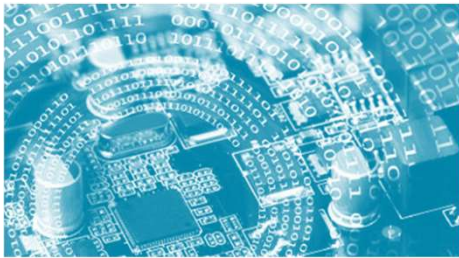
- Integrated circuits
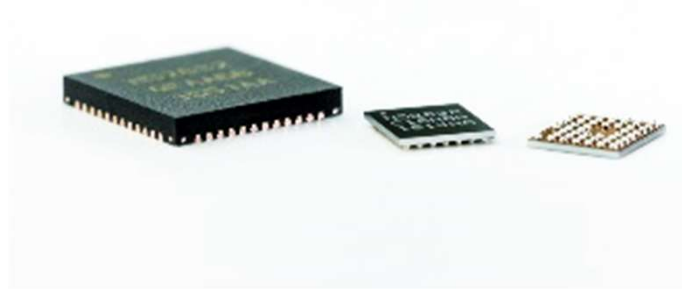
- Development tools

- Wireless protocol stacks
- Software Development Kits(SDKs)

- System-on-Chips (SoCs)
- System-in-Package(SiPs)
- Wireless connectivity ICs (Radios)

- Development kits
- Software tools Mobile Applications

Nordic Semiconductor products

Short Range	Wi-Fi	Cellular	PMIC	nRF Cloud
nRF 52 SERIES **nRF 53 SERIES** **nRF 54 SERIES** **nRF 21 SERIES**	**nRF 70 SERIES**	**nRF 91 SERIES**	**nPM FAMILY**	☁
Bluetooth Low Energy	Wi-Fi 6	LTE-M	Li-Ion charger	Cloud connectivity
Matter	2.4GHz +5GHz	NB-IoT	LDO	Location support
Thread/Zigbee		GPS		SCELL/MCELL
Proprietary			DC/DC buck converter	AGPS/PGPS
				Device management

Dedicated to wireless connectivity

Broad portfolio - scalable solutions – common software platform

Strong product and solutions portfolio...

...for short-, medium- and long-range connectivity technologies

Low-power integrated circuits (ICs)

+

Embedded software

+

Advanced development tools

Short-range IoT

Bluetooth LE, 802.15.4/Thread, Zigbee and 2.4GHz RF SoCs

Medium-range IoT

Acquired leading Wi-Fi team and Wi-Fi assets in 2020

Long-range cIoT

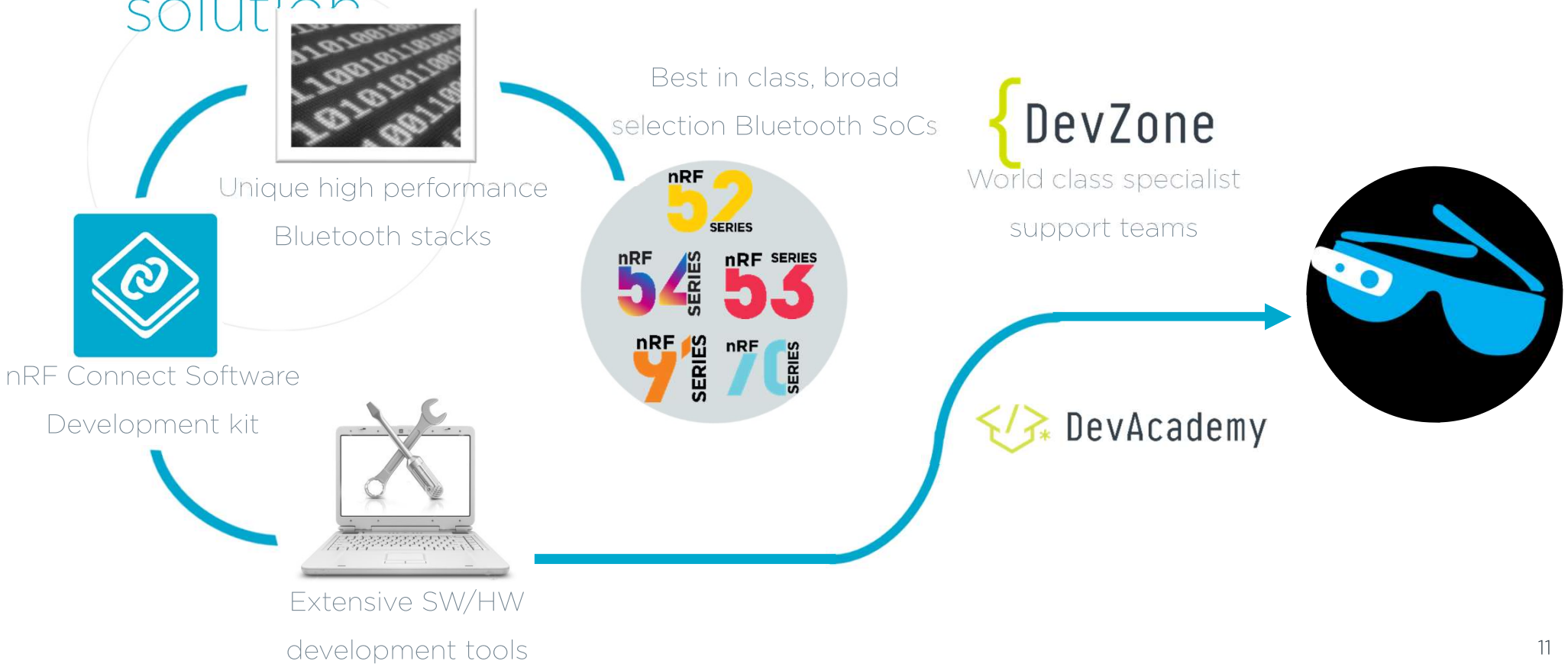Multi-mode cellular LTE-M/NB-IoT Modules

9

Clear market leader in a growing market

Nordic is the
clear market leader
#1 in number of designs
#1 in units sold

The Complete Bluetooth® low energy solution

Best in class, broad
selection Bluetooth SoCs

{ DevZone

Unique high performance
Bluetooth stacks

World class specialist
support teams

nRF
52
SERIES

nRF
54
SERIES

nRF
53
SERIES

nRF
91
SERIES

nRF
70
SERIES

nRF Connect Software
Development kit

DevAcademy

Extensive SW/HW
development tools

Dive into the IoT wireless technologies

- Nordic Developer Academy

- Nordic Tech Webinars

- Nordic DevZone
  - Leading community in the industry
  - >80K developers, 2.4M annual site visits
  - Strong tech support team
  - Blogs, guides, and tutorials

Nordic Developer Academy

- Interactive online learning <u>platform</u>
  - State of the art IoT wireless technologies focused
  - Curriculum-based courses with well-defined learning paths
  - Self-paced hands-on courses
  - Test your knowledge through interactive quizzes

Student opportunities

This year we have had over 100 students working at Nordic!

Student opportunities at Nordic

SUMMER JOB

MASTER THESIS
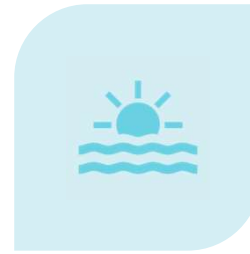
PART-TIME (1 DAY A WEEK, PRIMARLY AFTER BEING A SUMMER STUDENT)

GRADUATE POSITIONS AFTER GRADUATING

Summer job

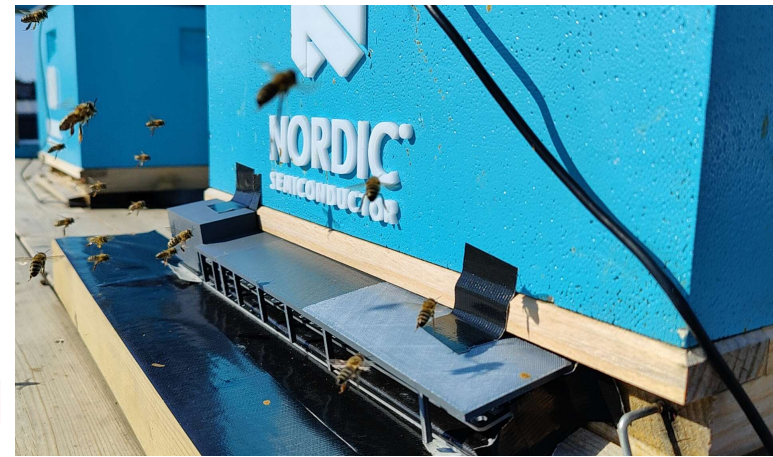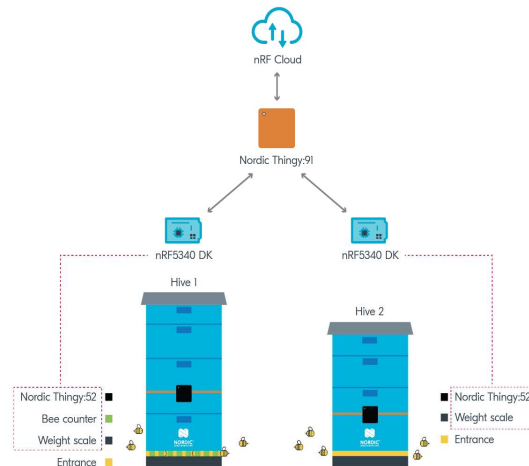Usually, you will be working on a project together with other students
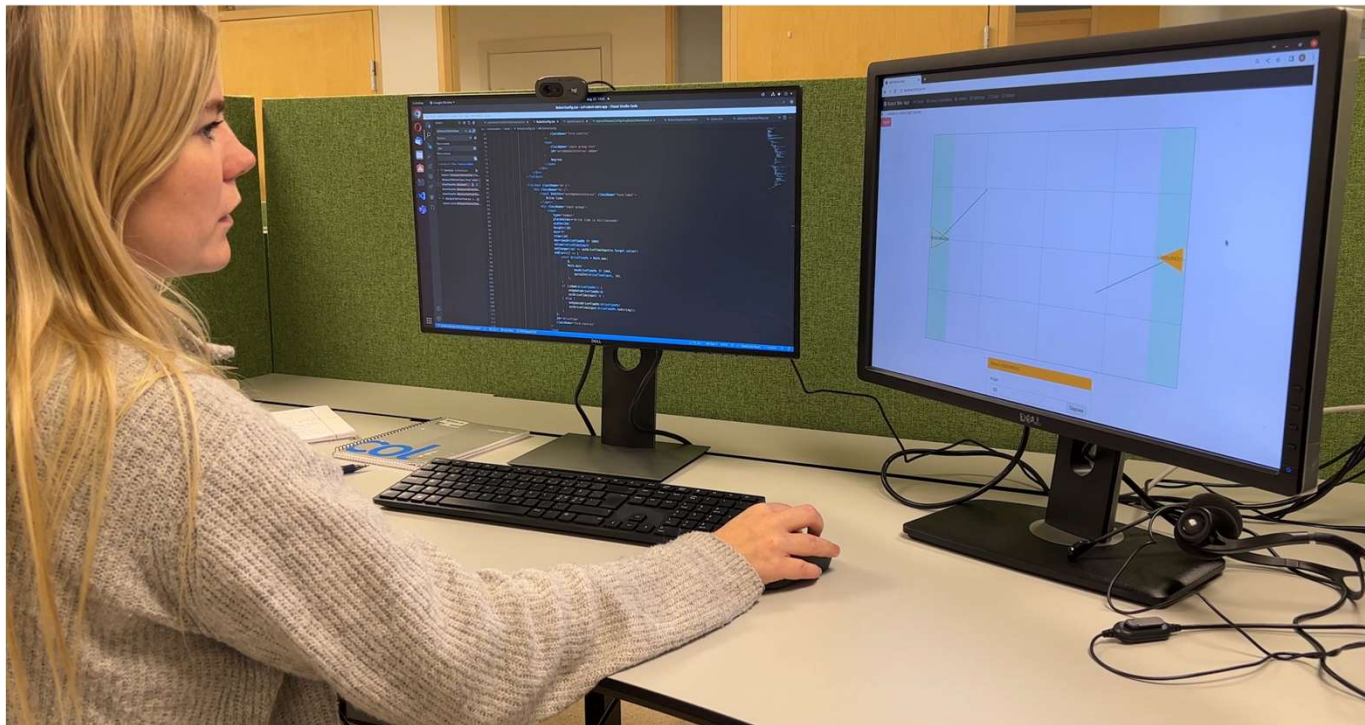
Will get help from a mentor

Great opportunity for moving on to part-time or fulltime positions at Nordic

- Beehaviour monitoring: Making Beehives smart with Nordic products

Robot Wars

- Capture your opponent's home base! Controlled from the cloud through a Bluetooth Mesh gateway.