## Slovenská technická univerzita v Bratislave Fakulta informatiky a informačných technológií

Ilkovičova 2, 842 16, Bratislava 4

## Tímový projekt



Export úloh z nástroja JIRA

Vedúci projektu: doc. Ing. Tibor Krajčovič, PhD.

**Spolupráca**: Ing. Lukáš Ondriga, Kistler Bratislava, s.r.o.

Názov tímu: TEST.IOT

Členovia tímu: Bc. Tomáš Bujna

Bc. Marián Ján Franko Bc. Rastislav Kováč

Bc. Igor Labát

Bc. Miroslav Sabo

Bc. Filip Starý

Bc. Stanislav Širka

**Kontakt:** fiit.tp.tim15@gmail.com

Akademický rok: 2018/2019

Summary Project goal	Issue key	Group	Status	Assignee	Description  The goal of the porject is to enable automatic testing of measuring devices. For this purpose it is necessary to develop a device able to generate various analog and digital signals which will	Epic Link	Epic Name	Sprint 1	Sprint 2	Sprint 3	Sprint 4	Sprint 5	Sprint 6	Sprint 7	Sprint 8	Story Points	Task type
Robot Framework Tests	IOT-70	Group	Group		simulate sensors and device states.  Examples of robot framework tests demonstrates the functionality of IoTester.												
Document how to					, , , , , , , , , , , , , , , , , , , ,												
use IoTester for devices other than ComoNeo	IOT-76	Group	Group														
Design Environment	IOT-71	Group	Group		First prototype of the device is used to test ComoNeo:Â [https://www.kistler.com/en/applications/industri												
Configuration of digital signals	IOT-77	Group	Group		al-process-control/plastic-process- monitoring/injection-molding-process- control/process-monitoring-with-comoneo/] It is possible to set digital input signals over REST API.												
Configuration of various devices	IOT-73	Group	Group		REST API should not be ComoNeo specific. It should be possible to use the same data model for other devices.												
REST API	IOT-75	Group	Group		On the basis of ComoNeo analysis create a REST												
Configuration of	IOT-72	Group	Group		API interface. It is possible to configure analog signals over REST												
analog signals Tests integration into			,		API.												
continuous integration system	IOT-60	Group	Group														
IoTester architecture	IOT-69	Group	Group		Architecture of the IoTester software is documented.												
Robot framework integration	IOT-66	Group	Group														
High level architecture	IOT-65	Group	Group		Architecture document contains high level view on PRU, ARM, beaglebone, robot framework and ComoNeo relations.Â												
Document how to use IoTester for ComoNeo	IOT-64	Group	Group														
Architecture document	IOT-68	Group	Group														
Hardware	IOT-63	Group	Group		Harware consists of reusable part and device specific part (e.g. ComoNeo connectors).												
Implementation	IOT-62	Group	Group		The goal of the implementation is to provide several working automated tests of the ComoNeo device.												
Housing Robot Framework	IOT-61	Group	Group		3D printer housing modelsÅ is designed.												
tests Test examples																	
implementation IoTester	IOT-55	Group	Group														
implementation Software	IOT-58	Group	Group														
Project goal	IOT-57	Group	Group														
Documentation PRU Reads Data	IOT-56	Group	Group		REST API is documented. Documentation contains description how to use the interface for different devices (not Lukáš Ondrigay for ComoNeo).												
Stored to Shared Memory PRU Generates	IOT-138	Sub-task	In Progress	Rastislav Kováč									IOT Sprint 6	IOT Sprint 7	IOT Sprint 8		
Analog Signal from REST API	IOT-139	Sub-task	In Progress	Filip Starý									IOT Sprint 6	IOT Sprint 7	IOT Sprint 8		
Update REST API	IOT-140	Sub-task	Closed	Tomáš Bujna	[https://git.kistler.com/FIIT/iotester/blob/master/ RTU/Flask/REST%20API%20-%20final.py]  PlatĂ- konvencia ukladania do Shared Memory ako bolo dohodnuté								IOT Sprint 6	IOT Sprint 7	IOT Sprint 8		
Automatic Image Boot from SD Card	IOT-148	Story	Closed	Rastislav Kováč	As a IoTÂ tester I want to image from SD card boot automatically.   Acceptacne criteria:	IOT-89									IOT Sprint 8	8.0	
					* image from SD card is booted on BBB startup												
COMONEO Test  Deployment	IOT-141 IOT-89	Sub-task Epic	In Progress To Do	Marián Ján Franko			Deployment						IOT Sprint 6	IOT Sprint 7	IOT Sprint 8		
PRU Shared Memory	IOT-121	Story	Closed		(color:#333333}As a developer I want to write/read data into/from shared memory of PRU so that we can store data for signal generation.(color)	IOT-36								IOT Sprint 7	IOT Sprint 8	13.0	
Documentation for PRU Shared Memory	IOT-130	Sub-task	Closed	Stanislav Širka										IOT Sprint 7	IOT Sprint 8		
Interfaces Design	ЮТ-91	Story	Closed		As a developer of loTester I need a design of the communication message between PRU and CPU. Acceptance criteria: "message should be easy to use for PRU (no passing, no caching in PRU,) "message will support all digital outputs and analog outputs usable on loTester "documentation of the message - will contain reasoning." "the basic idea how to create this message in CPU is described	ЮТ-36					IOT Sprint 4	IOT Sprint 5	IOT Sprint 6	IOT Sprint 7	IOT Sprint 8	13.0	
Documentation fot Interface Design	IOT-129	Sub-task	Closed	Igor Labát							IOT Sprint 4	IOT Sprint 5	IOT Sprint 6	IOT Sprint 7	IOT Sprint 8		
Design Interface between CPU and PRU	IOT-105	Sub-task	Closed	Igor Labát							IOT Sprint 4	IOT Sprint 5	IOT Sprint 6	IOT Sprint 7	IOT Sprint 8		
Sprint 8 - Keep It Running	IOT-142	Story	Closed	Stanislav Širka											IOT Sprint 8	3.0	
Update Retrospective Presentation for End	IOT-145	Sub-task	Closed	Stanislav Širka											IOT Sprint 8		
of Sprint 8	IOT-147	Sub-task	Closed	Stanislav Širka											IOT Sprint 8		
REST API for analog output of IoTester	IOT-83	Story	То Do		As a user of loTester I want to be able to set the analog and digital outputs.  Acceptance criteria:  *loTester Rest API provides a call which allows to set digital and analog outputs of loTester  *The Rest API handler sends the data as a message to RTU  HINT:  The handler can prepare the data in a *RTU  friending* form.	ЮТ-36									IOT Sprint 8	21.0	
Split Stories to Sub-	IOT-146	Sub-task	Closed	Stanislav Širka											IOT Sprint 8		
Read data from shared memory from	IOT-125	Sub-task	Closed	Tomáš Bujna										IOT Sprint 7	IOT Sprint 8		
PRU Write data to shared memory from CPU	IOT-124	Sub-task	Closed	Tomáš Bujna										IOT Sprint 7	IOT Sprint 8		
Run program for CPU and PRU	IOT-123	Sub-task	Closed	Tomáš Bujna										IOT Sprint 7	IOT Sprint 8		
communication Export Tasks for Start	IOT-144	Sub-task	Closed	Stanislav Širka											IOT Sprint 8		
of Sprint 8 Export Tasks for End	IOT-143	Sub-task	Closed	Stanislav Širka											IOT Sprint 8		
of Sprint 7 Documentation	IOT-137	Sub-task	To Do	J.L. Maluv Silka											IOT Sprint 8		
Comment Code Comment Prototype	IOT-136	Sub-task Sub-task	To Do										IOT Sprint 6	IOT Sprint 7	IOT Sprint 8		
Code Push Code to GIT	IOT-133	Sub-task Sub-task	To Do										.or sprint 6	.or sprint /	IOT Sprint 8		
		_											IOT Sprint 6	IOT Sprint 7	IOT Sprint 8		
Push Prototype Code to GIT	IOT-132	Sub-task	To Do										101 Spriit 0	101 Spriit 7	IOI Sprint 8		

					As a user of IoTester I want to be able to run measurement on ComoNeo										
					Acceptance criteria:										
Run ComoNeo measurement	IOT-92	Story	In Progress		* PRU application sets measurement start digital input of ComoNeo and sets one value to the DAC	IOT-36					IOT Sprint 6	IOT Sprint 7	IOT Sprint 8	8.0	
					converter  * The dac value is possible to set via REST API										
					* Robot Framework test checks if the cycle started and checks if the value is as expected										
Analyze shared memory	IOT-122	Sub-task	Closed	Tomáš Bujna								IOT Sprint 7	IOT Sprint 8		
					As a developer of IoTester I need to send a simple message to SPI interface										
					*Acceptance criteria:*										
					* prepare a simple program to work with SPI										
Send Data to SPI	IOT-96	Story	Closed		interface - the program is compilable and possible to load into PRU	IOT-36					IOT Sprint 6	IOT Sprint 7		13.0	
					* enabled SPI and GPIOs which are necessary to control DAC in the device tree										
					* send simply message to SPI interface (possible to measure it by an oscilloscope)										
Test SPI without PRU	IOT-120	Sub-task	Closed								IOT Sprint 6	IOT Sprint 7			
Send constant data to SPI interface	IOT-106	Sub-task	Closed								IOT Sprint 6	IOT Sprint 7			
Compile and Run Simple SPI program	IOT-98	Sub-task	Closed	Filip Starý							IOT Sprint 6	IOT Sprint 7			
Simple SPI program					* Actual SD card image										
					* Code composer * Connect to BBB										
BBB for All	IOT-118	Sub-task	Closed	Rastislav Kováč	All informations are in pdf file						IOT Sprint 6	IOT Sprint 7			
					Added tutorial for updating device tree on sd card										
Close sprint 6	IOT-126	Task	Closed	Stanislav Širka		IOT-36						IOT Sprint 7			
Prepare for End of Sprint 7	IOT-128	Task	Closed	Stanislav Širka		IOT-36						IOT Sprint 7			
Effective Retrospective	IOT-127	Task	Closed	Stanislav Širka		IOT-36						IOT Sprint 7			
					As a user I want to be able to test an analog output on IoTester to be able to test analog input of										
Test analog inputs on					on 10 lester to be able to test analog input of ComoNeo.										
Test analog inputs on ComoNeo	IOT-36	Epic	To Do		Acceptance criteria: * test in robot framework:		ComoNeo Analog Inputs								
					** configures IoTester to send an analog signal  ** checks if the signal was measured by ComoNeo										
					checks if the signal was measured by comoveo										
Finalyze Interface between COMONEO	IOT-104	Sub-task	Closed	Tomáš Bujna	https://git.kistler.com/FIIT/iotester/tree/RF/BBB/R ESTAPI				IOT Sprint 4	IOT Sprint 5	IOT Sprint 6	IOT Sprint 7	IOT Sprint 8		
and BBB					Time: 8h										
					Setup Device Tree										
Sotur David	IOT-97	Sub-to-1	Cl	Rastislav Kováč	Set pins 190/194/198/19c to mode 0x03						IOT Care	IOT			
Setup Device Tree	101-97	Sub-task	Closed	Kastislav Kovac	[Result https://files.slack.com/files-pri/TCZR1HLDT-						IOI Sprint 6	IOT Sprint 7			
					FGK3ZH075/pins.png]										
					Å https://git.kistler.com/FIIT/iotester/tree/IOT-										
Measure PRU message size limit	IOT-107	Sub-task	Closed	Tomáš Bujna	107/IOT- 107%20%5BMeasure%20PRU%20message%20size						IOT Sprint 6	IOT Sprint 7			
Calculate if we are					%20limit%5D										
able to write the whole curve to PRU	IOT-119	Sub-task	Closed	Tomáš Bujna							IOT Sprint 6	IOT Sprint 7			
whole curve to PRU					As a developer of IoTester I need to measure the										
					size limit of PRU message system										
Analyze Memory Limit of PRU	IOT-103	Story	Closed		Acceptance criteria:	IOT-36					IOT Sprint 6	IOT Sprint 7		5.0	
					* measure PRU message size limit * measure if we are able to write the whole curve										
Decide on Our	IOT-29	Task	Closed		to PRU										
Guidelines															
					As a developer of IoTester I need to have a basic understanding of how to communicate with DAC,										
					how to setup DAC to get desire analog value										
					* analyze how the DAC chip is connected to the board (SPI, GPIOs) - which BBB pins are used to										
					control DAC - as an output prepare a simple sketch of PIN description										
Analyze Analog Output of DAC	IOT-99	Story	Closed		* analyze how to use	IOT-36					IOT Sprint 6			5.0	
Output of DAC					DACs [http://www.ti.com/lit/ds/symlink/dac8734 .pdf]										
					# what data should be sent via SPI interface to get desired analog value.										
					# how to command DAC to set the analog output										
					* team understands the concept of daisy-chain Å [https://www.maximintegrated.com/en/app-										
					notes/index.mvp/id/3947]										
					As I user I want to generate analog output on										
					IoTester and test the behaviour of ComoNeo firmware.										
					Acceptance criteria:  * Test sets the measurement start of the										
Create a test for ComoNeo analog	IOT-82	Story	To Do	Marián Ján Franko	* Test sets the measurement start of the ComoNeo to a pin connected to IoTester  * Test sets the analog output values to the	IOT-36						IOT Sprint 7			
input					IoTester (e.g. in 10 secondsÅ sets 10 different values)										
					* Test starts the measurement with digital output of IoTester										
					* Test checks the values using cursor in ComoNeo web application (see the attachment)										
					As a user of 101 ester I need the documentation of REST API to be able to use this interface.										
					Acceptance criteria:										
					REST API is not ComoNeo specific     REST API enables to set digital and analog										
					outputs of IoTester  * Documentation of REST APIÂ										
					Å										
					Hint:										
Davies	107	Ch.	*		Analyse the data used in ComoNeo software	105 ::									
Design REST API	IOT-42	Story	To Do		simulator:	IOT-40									
					[https://git.kistler.com/comong/comong- software/tree/master/Core/lib/Fpga/Simulator]										
					Various configurations of software simulator are										
					available here in ApplicationFiles/Simulator folders:										
					[https://git.kistler.com/comong/comong-										
					software/tree/master/Testing/RestApi- Robot/Setups]										
					â.										

					As a user I want to test the measured data on											
Run ComoNeo					ComoNeo.											
measurement with one curve	IOT-117	Story	To Do		Acceptance criteria:  * one curve is set from REST API to the PRU	IOT-36										
					* the curve contains 100 points * the curve is displayed on ComoNeo											
					As a user I want to use all analog and digital											
					outputs of IoTester to be able to control ComoNeo.											
Enable multiple digital and analog	IOT-86	Story	To Do		Acceptance criteria: * Rest API is extended so that it allows	IOT-40										
outputs					configuration of all digital and analog outputs * RTU executes the configuration according											
					defined timing											
					As a ComoNeo tester I want to be able to take the data for ComoNeo simulator and configure with											
					the loTester											
					Acceptance criteria: * Robot framework keyword which will load											
					configuration from ComoNeo fpga simulator and configures IoTester via Rest API											
					ComoNeo Simulator input data description:											
					[https://git.kistler.com/comong/comong-											
ComoNeo simulator	IOT-85	Story	To Do		software/tree/master/Core/lib/Fpga/Simulator)	IOT-40										
data conversion		,			ComoNeo Simulator input data examples:											
					[https://git.kistler.com/comong/comong- software/tree/release-3.0/Testing/RestApi-											
					Robot/Setups/2molds/ApplicationFiles/Simulator]											
					[https://git.kistler.com/comong/comong- software/tree/master/Testing/RestApi-											
					Robot/Setups/8c1p/ApplicationFiles/Simulator]											
					Â											
					Å As a hardware engineer, IÅ want to create											
Prepare Document for Board Design	IOT-49	Story	In Progress	Miroslav Sabo	document for board design, so that we can use it as a guideline for creating final design of our new	IOT-1				IOT Sprint 3					8.0	
Kistler VPN Access	IOT-28	Task	Closed	Lukáš Ondriga	board.Â			IOT Sprint 1	IOT Sprint 2							
					As a user I want to have access to the IoTester REST API after boot.											
Start webserver	IOT-116	Story	To Do		Acceptance criteria:	IOT-89										
automaticaly					* IoTester python webserver is added to Yocto build											
					* REST API is available after IoTester boot.  As a user I want to have the PRU software loaded											
Load PRU exe					automaticaly after boot.											
automaticaly	IOT-115	Story	To Do		Acceptance criteria:  * PRU application is added to Yocto build	IOT-89										
					* after the boot of generated image the PRU application is started											
					As a user of IoTester I want my device to be configured automaticaly with the correct device											
Configure device tree					tree.											
for SD card image generation	IOT-114	Story	To Do		Acceptance criteria:  * device tree configuration added to Yocto layer	IOT-89										
8					* generated image can boot and device tree is configured in correct way (e.g. spi bits have correct											
					mode) As a developer of IoTester I need SD card image											
					which contains flusk to be able to develop IoTester											
Add flusk into SD card	IOT-113	Story	To Do		application.  Acceptance criteria:	IOT-89										
image generation	101-113	Story	10 00		* new layer added to yocto configuration * image configuration including flusk added	101-03										
					* generated image can be load to the sd card and the flusk is installed											
					As a developer I need to be able to generate new SD card image.											
					Acceptance criteria:											
SD card image generation	IOT-81	Story	To Do		* Script for building SD card image from existing yocto configuration for TI Processors SDK is	IOT-89										
<u> </u>					created * Script is available in Git repository											
					* It is possible to load generated image to the SD card and run it on BBB											
Update Retrospective	IOT-111	Task	Closed	Stanislav Širka									IOT Sprint 6			
in Trello  Prepare Presentation																
for Sprint 6	IOT-110	Task	Closed	Stanislav Širka									IOT Sprint 6			
Refactoring HW for better compactness	IOT-1	Epic	To Do				IoTester Refactoring									
New Informations in	IOT-112	Task	Closed	Stanislav Širka									IOT Sprint 6			
JIRA Tasks Export JIRA Tasks for	IOT-109	Task	Closed	Stanislav Širka									IOT Sprint 6			
Sprint 6 Start Understands daisy-	IOT-102	Sub-task	In Progress	Igor Labát									IOT Sprint 6			
chain concept  Basic understanding				-												
of DAC	IOT-100	Sub-task	Blocked	Igor Labát									IOT Sprint 6			
DAC chip is	IOT-101	Sub-task	Blocked	Miroslav Sabo									IOT Sprint 6			
connected to the board (SPI, GPIOs)																
Create Project Documentation for ZS	IOT-95	Story	Closed	Stanislav Širka								IOT Sprint 5			8.0	
Digital Input Test Integration	IOT-90	Story	Closed	Stanislav Širka		IOT-2					IOT Sprint 4	IOT Sprint 5			13.0	
Model Architecture	IOT-80	Task	Closed	Stanislav Širka						IOT Sprint 3	IOT Sprint 4					documentation
for Project										,	., ,					
					As a user I want to be able to set digital output from RTU to be able to test ComoNeo digital input.											
Program for RTUexe	IOT-9	Story	Closed	Filip Starý	Acceptance criteria:	IOT-2					IOT Sprint 4				8.0	
Configuration					Running RTU program which sets the digital output											
					of IOTester according configuration from CPU.											
Create First  Document for Project	IOT-93	Story	Closed	Stanislav Širka							IOT Sprint 4				8.0	
Close Sprint 3	IOT-94	Task	Closed	Stanislav Širka							IOT Sprint 4					
Testing digital inputs on ComoNeo	IOT-2	Epic	To Do				ComoNeo Digital Inputs									
Create Team Poster	IOT-26	Task	Closed													documentation
Decide on	IOT-22	Task	Closed													
Call Program on RTU	IOT-19	Task	Closed			IOT-2										implementation
from CPU Analyze	.5, 15	70,00	2.0300			.5.2										
Communication Between RTU and	IOT-18	Task	Closed			IOT-2										analysis
CPU																analysis
Analyze RTU Choose Simple	IOT-13	Task	Closed			IOT-2										allalysis

RTU and Web Server	IOT-14	Task	Closed			IOT-2								analysis
Compatibility														
Load Program to RTU	ЮТ-17	Task	Closed	Igor Labát	As a user I want to be able to set digital output from RTU to be able to test ComoNeo digital input. Acceptance criteria: Running RTU program which sets the digital output of IOTester according configuration from CPU.	IOT-2		IOT Sprint 1	IOT Sprint 2	IOT Sprint 3				implementation
Methodics	IOT-44	Story	Closed	Stanislav Širka	Create methodic for:  * Meeting Documentation  * Tasks managment - done  * Methodics - done  * Code versioning - done  * Web - done			IOT Sprint 1	IOT Sprint 2	IOT Sprint 3			3.0	
RTU and CPU Communication	IOT-8	Story	Closed	Filip Starý	As a user I need to configure real time simulation to run various simulations.  Acceptance criteria:  RTU and CPU prototype is running on Beaglebone Linux console.	IOT-2		IOT Sprint 1	IOT Sprint 2	IOT Sprint 3			5.0	
Load RTUexe	101-7	Story	Closed	Igor Labát	As a user I need to do a real time simulation to be able to simulate sensor measurements.  Acceptance criteria:  Loading of the program to the real time unit will be shown on Linux console.  As a user I want try the latest changes of the	IOT-2		IOT Sprint 1	IOT Sprint 2	IOT Sprint 3			13.0	
Jenkins pipeline for installation image	IOT-88	Story	To Do		Acceptance criteria:  * Jenkins pipeline which will be trigerred by the change in a gilt branch and will compose the loTester firmware	IOT-89								
Create Project Specification	IOT-25	Task	Closed	Lukáš Ondriga	To rester miniware									documentation
Analyze, design, implement REST API	IOT-40	Epic	To Do				REST API							
Manage Kistler resources for PCB	IOT-53	Task	Closed	Lukáš Ondriga						IOT Sprint 3				
design  Create Document for														
Tasks Managment  Presentation for	IOT-52	Task	Closed	Stanislav Širka						IOT Sprint 3				documentation
Sprint 3 End Close Sprint 2	IOT-79	Task Task	Closed	Stanislav Širka Stanislav Širka						IOT Sprint 3 IOT Sprint 3				
Create Document for Jira Changes	IOT-51	Task	Closed	Stanislav Širka						IOT Sprint 3				documentation
REST API Prototype	IOT-10	Story	Closed	Tomáš Bujna	As a user of IOTester want to have interface to set the Como digital input to be able to configure IOTester.  Acceptance criteria:  "working websterver on beagleboard  "implemented simple post request with value of digital input (or or )."  "post request execution is logged to the console Ax a test developer! want to have a library to use	IOT-2				IOT Sprint 3			3.0	
Robot Framework LIB	IOT-11	Story	Closed	Marián Ján Franko	IOTester Acceptance criteria: **python module **keywords to set Como digital inputs are implemented HHNT-Ä implementation of the keywords are POST requests to the IOTester POST request is implemented in http://lipa kisher com/browse/IOT-10	IOT-2				IOT Sprint 3			5.0	
Port loTester specification to Jira	IOT-54	Task	Closed	Lukáš Ondriga	meritap.// michigater.com/ growsc/101 20					IOT Sprint 3				
Créate a Test	IOT-12	Story	Closed	Marián Ján Franko	As a user I want to test the ComoNeo digital input. Acceptance criteria: Test configures to Tester (library for to Tester configuration will be implemented in different user story) Test checks the ComoNeo web application if the digital input was set. A	IOT-2		IOT Sprint 1	IOT Sprint 2	IOT Sprint 3			13.0	
Analyze Board	IOT-3	Story	Closed	Miroslav Sabo	As a hardware engineer I need to analyse the current board to be able to make the final design.  Acceptance criteria:  Document the current design of the board.	IOT-1		IOT Sprint 1	IOT Sprint 2				8.0	
Close Sprint 1	IOT-48	Task	Closed	Stanislav Širka	Close sprint 1. Create sprint 2.				IOT Sprint 2					
Create Team Website	IOT-30	Story	Closed	Tomáš Bujna	Export tasks from Jira.			IOT Sprint 1					8.0	
Print User Stories Choose Web Server	IOT-47	Task	Closed	Stanislav Širka				IOT Sprint 1						
Technology  Technology for Linux (Web Server)	IOT-15	Task	Closed	Rastislav Kováč Rastislav Kováč	As a developer I want to select frameworks/technologies to be able to write REST And for Beaglebone Black real time unit configurations. Acceptance criteria: Document 3 alternatives with pros and cons.	10T-2		IOT Sprint 1					5.0	
Create Methodic for Methodics Document	IOT-45	Task	Closed	Stanislav Širka				IOT Sprint 1						documentation
Export Data From Jira Sprint 1 Start	IOT-46	Task	Closed	Stanislav Širka				IOT Sprint 1						
Add Tasks to Jira  Share Google Drive	IOT-20	Task Task	Closed	Stanislav Širka	Subtasks left:  * Create Sprint - done  * Add tasks to Sprint - done  * Add task owners - done			IOT Sprint 1						
Write TP1 Requirements	IOT-32	Task	Closed	Stanislav Širka										
Study SCRUM Create Team Chat	IOT-33 IOT-23	Task Task	Closed	Stanislav Širka										
Update Trello  Decleration	IOT-31	Task Task	Closed	Stanislav Širka										documentation
Study Poker Cards	IOT-34	Task	Closed	Stanislav Širka										
Study Story Points Create Team GIT	IOT-35 IOT-21	Task Task	Closed	Stanislav Širka										