



SPRINT 3

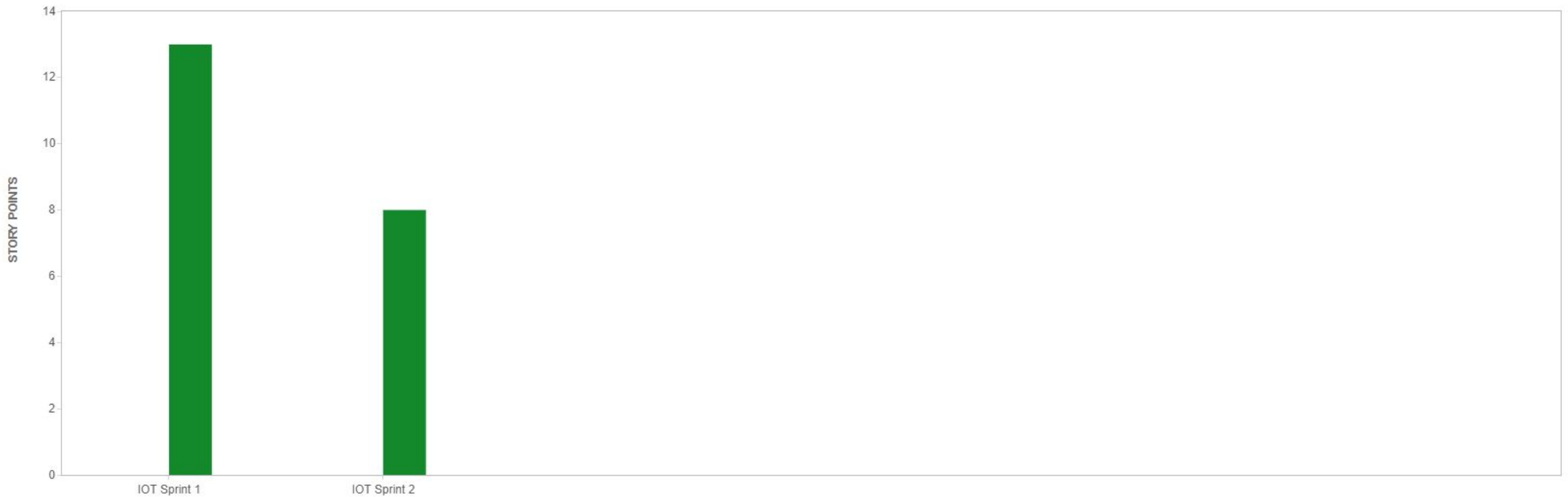
Sprint 3 - Epics and Stories

- ▶ **Stories for Epic - ComoNeo Digital Inputs**
 - ▶ **Load RTUexe** (Story Points - 13, Story Owner - Igor Labát)
 - ▶ **RTU and CPU Communication** (Story Points - 5, Story Owner - Filip Starý)
 - ▶ **Create a Test** (Story Points - 13, Story Owner - Marián Ján Franko)
 - ▶ **REST API Prototype** (Story Points - 3, Story Owner - Tomáš Bujna)
 - ▶ **Robot Framework Lib** (Story Points - 5, Story Owner - Marián Ján Franko)

Sprint 3 - Epics and Stories

- ▶ **Stories for Epic - IoTester Refactoring**
 - ▶ **Prepare Document for Board Design** (Story Points - 8, Story Owner - Miroslav Sabo)
- ▶ **Stories without Epic**
 - ▶ **Methodics** (Story Points - 3, Story Owner - Stanislav Širka)

Team Velocity



| Sprint | Commitment | Completed |
|--------------|------------|-----------|
| IOT Sprint 1 | 0 | 13 |
| IOT Sprint 2 | 0 | 8 |



▶ This sprint 50 story points?

Story - Load RTUexe

- ▶ Epic - ComoNeo Digital Inputs
- ▶ Story points - 13
- ▶ Story Owner - Igor Labát
- ▶ Previous sprints - Sprint 1, Sprint 2
- ▶ Description
 - ▶ As - a user
 - ▶ I need to - do a real time simulation
 - ▶ To - be able to simulate sensor measurements
- ▶ Product owner acceptance criteria
 - ▶ Loading of the program to the real time unit will be shown on Linux console

Story - Load RTUexe

- ▶ Tasks Backlog
 - ▶ Load test program into PRU on BBB
- ▶ Tasks In Progress
 - ▶ ...
- ▶ Done Tasks
 - ▶ Load test program into PRU on BBB

Demo - Load RTUexe

```
am335x-evm login: root
root@am335x-evm:~# ls
root@am335x-evm:~# echo 'am335x-pru0-fw' > /sys/class/remoteproc/remoteproc1/fir
mware
root@am335x-evm:~# echo 'start' > /sys/class/remoteproc/remoteproc1/state
root@am335x-evm:~# ls /dev/ | grep pru
rpsmsg_pru30
root@am335x-evm:~# echo "testiot" > /dev/rpsmsg_pru30
root@am335x-evm:~# cat /dev/rpsmsg_pru30
testiot
^C
root@am335x-evm:~# echo 'stop' > /sys/class/remoteproc/remoteproc1/state
root@am335x-evm:~#
```

Story - RTU and CPU Communication

- ▶ Epic - ComoNeo Digital Inputs
- ▶ Story points - 5
- ▶ Story Owner - Filip Starý
- ▶ Previous sprints - Sprint 1, Sprint 2
- ▶ Description
 - ▶ As - a user
 - ▶ I need to - configure real time simulation
 - ▶ To - run various simulations
- ▶ Product owner acceptance criteria
 - ▶ RTU and CPU prototype is running on Beaglebone Linux console

Story - RTU and CPU Communication

- ▶ Tasks Backlog
 - ▶ Analyze PRU communication on BBB
 - ▶ Install Composer Studio
 - ▶ Link PRU program on BBB
- ▶ Tasks In Progress
 - ▶ Link PRU program on BBB
- ▶ Done Tasks
 - ▶ Analyze PRU communication on BBB
 - ▶ Install Composer Studio

Story - Create a Test

- ▶ Epic - ComoNeo Digital Inputs
- ▶ Story points - 13
- ▶ Story Owner - Marián Ján Franko
- ▶ Previous sprints - Sprint 1, Sprint 2
- ▶ Description
 - ▶ As - a user
 - ▶ I want to - test the ComoNeo digital input
- ▶ Product owner acceptance criteria
 - ▶ Test configures IoTester (library for IoTester configuration will be implemented in different user story)
 - ▶ Test checks the ComoNeo web application if the digital input was set

Story - Create a Test

- ▶ Tasks Backlog
 - ▶ ...
- ▶ Tasks In Progress
 - ▶ ...
- ▶ Done Tasks
 - ▶ Create a Test

Demo - Create a Test

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. Všetky práva vyhradené.

C:\Users\Acer>cd C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests

C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests>robot DigitalInput.robot
=====
DigitalInput
=====
Read digital input off
DevTools listening on ws://127.0.0.1:6162/devtools/browser/a9c406b9-93e8-4c3f-8870-7660557a69d3
Read digital input off                                     | PASS |
-----
Read digital input on
DevTools listening on ws://127.0.0.1:6203/devtools/browser/7b6dc612-5afb-4a94-98a1-c01eea7c19fe
Read digital input on                                     | PASS |
-----
DigitalInput                                             | PASS |
2 critical tests, 2 passed, 0 failed
2 tests total, 2 passed, 0 failed
=====
Output:  C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests\output.xml
Log:     C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests\log.html
Report:  C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests\report.html

C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests>
```

Story - REST API Prototype

- ▶ Epic - ComoNeo Digital Inputs
- ▶ Story points - 3
- ▶ Story Owner - Tomáš Bujna
- ▶ Description
 - ▶ As - a user of IOTester
 - ▶ I want to - have interface to set the Como digital input
 - ▶ To - be able to configure IOTester
- ▶ Product owner acceptance criteria
 - ▶ Working webserver on beagleboard
 - ▶ Implemented simple post request with value of digital input (0 or 1)
 - ▶ Post request execution is logged to the console

Story - REST API Prototype

- ▶ Tasks Backlog
 - ▶ ...
- ▶ Tasks In Progress
 - ▶ ...
- ▶ Done Tasks
 - ▶ REST API Prototype
 - ▶ REST API WITH JSON

Demo - REST API Prototype

FIIT > IoTester > Repository

IOT-11 iotester / BBB / RESTAPI / Final-version-RestAPI-with-JSON.py

Find file



adding rest-api

Marian Jan Franko authored 1 day ago

Final-version-RestAPI-with-JSON.py 527 Bytes

Edit

```
1 from flask import Flask, abort, request
2 import json
3
4 app = Flask(__name__)
5
6
7 @app.route('/digital_input', methods=['POST'])
8 def digital_input():
9     if request.method == 'POST':
10         if not request.json:
11             input = request.args.get('digIn')
12             print(input)
13             return input
14         print(request.json)
15         y = json.loads(request.json)
16         print (y["digIn"])
17         return json.dumps(request.json)
18
```

192.168.7.2 - PuTTY

```
login as: root
Debian GNU/Linux 8

BeagleBoard.org Debian Image 2016-01-24

Support/FAQ: http://elinux.org/Beagleboard:BeagleBoneBlack_Debian

default username:password is [debian:temp passwd]

Last login: Sun Jan 24 22:35:17 2016 from 192.168.7.1
root@beaglebone:~# cd Flask/
root@beaglebone:~/Flask# python App_Json.py
 * Running on http://0.0.0.0:5000/
 * Restarting with reloader
1
192.168.7.1 - - [24/Jan/2016 22:55:59] "POST /digital_input?digIn=1 HTTP/1.1" 200 -
0 -
0
192.168.7.1 - - [24/Jan/2016 22:55:59] "POST /digital_input?digIn=0 HTTP/1.1" 200 -
0 -
{"digIn": 0, "digIn2": 10}
0
192.168.7.1 - - [24/Jan/2016 22:55:59] "POST /digital_input HTTP/1.1" 200 -
```

Story - Robot Framework LIB

- ▶ Epic - ComoNeo Digital Inputs
- ▶ Story points - 5
- ▶ Story Owner - Tomáš Bujna
- ▶ Description
 - ▶ As - test developer
 - ▶ I want to - have a library
 - ▶ To - use IOTester
- ▶ Product owner acceptance criteria
 - ▶ Python module
 - ▶ Keywords to set Como digital inputs are implemented

Story - Robot Framework LIB

- ▶ Tasks Backlog
 - ▶ ...
- ▶ Tasks In Progress
 - ▶ ...
- ▶ Done Tasks
 - ▶ Robot Framework LIB

Demo - Robot Framework LIB

FIIT > IoTester > Repository

IOT-11 iotester / RobotFramework / Testiot / ExternalKeywords / ExternalKeywords.py Find file

Fixed bug with RestAPI test
G0254 authored 1 day ago

ExternalKeywords.py 518 Bytes Edit

```
1 import requests
2 import json
3
4 def send_digital_input(url, input):
5     payload = {'digIn': input}
6     response = requests.post(url, params=payload)
7     return response.text == input
8
9 def send_digital_input_json(url, input):
10    temp = '10'
11    payload = '{"digIn": '+input+', "digIn2": '+temp+'}'
12    #payload = {"digIn": input} # not working
13    headers = {'content-type': 'application/json'}
14
15    response = requests.post(url, data=json.dumps(payload), headers=headers)
16    return response.text == json.dumps(payload)
```

```
C:\Windows\system32\cmd.exe
Report: C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests
\report.html

C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests>robot Di
gitalInput.robot

=====
DigitalInput
=====
Send digital input 1 via REST | PASS |
-----
Send digital input 0 via REST | PASS |
-----
Send digital input in Json via REST | PASS |
-----
DigitalInput | PASS |
3 critical tests, 3 passed, 0 failed
3 tests total, 3 passed, 0 failed
=====
Output: C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests
\output.xml
Log: C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests
\log.html
Report: C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests
\report.html

C:\Users\Acer\Desktop\Git Kistler\iotester\RobotFramework\Testiot\Tests>
```

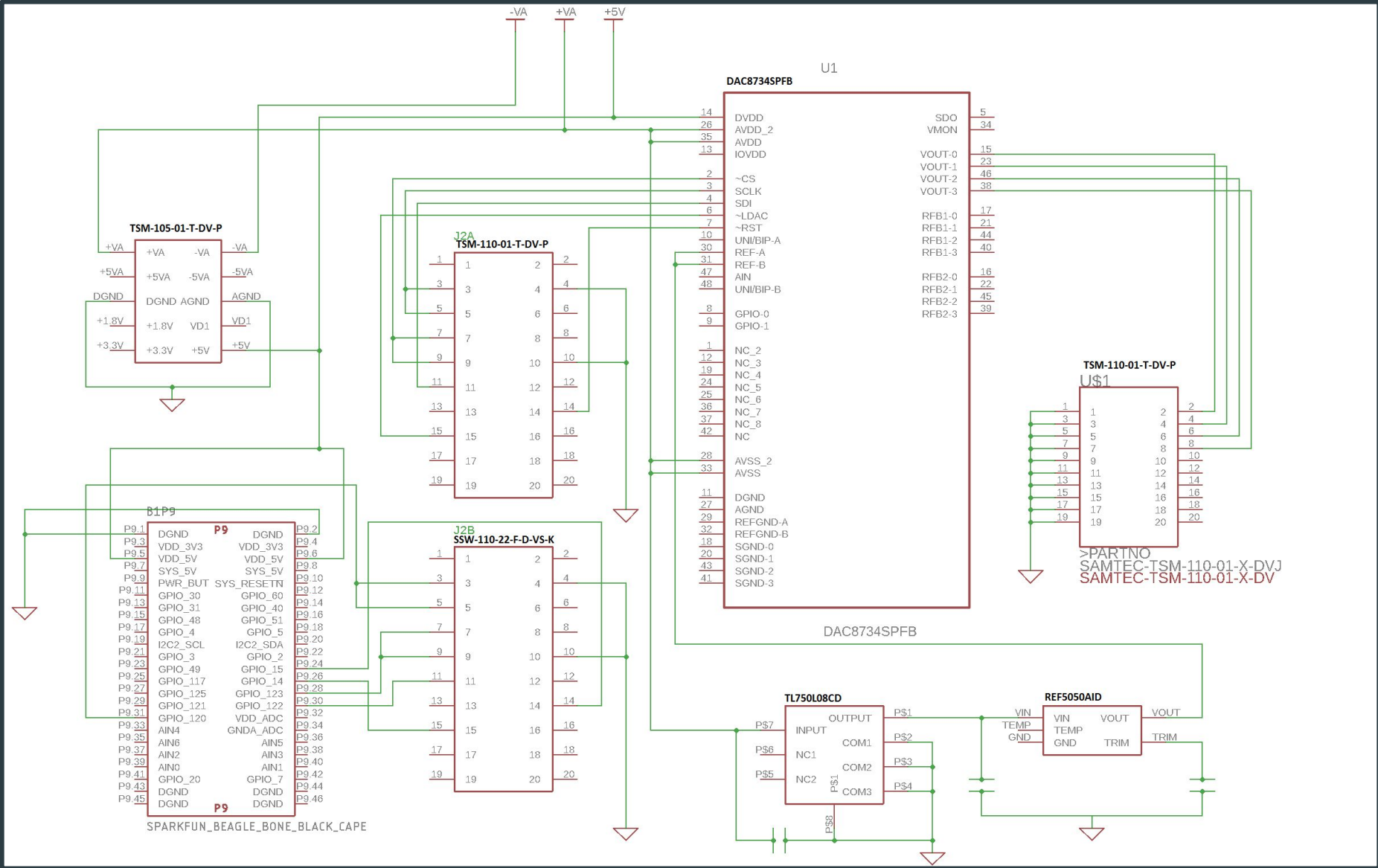
Story - Prepare Document for Board Design

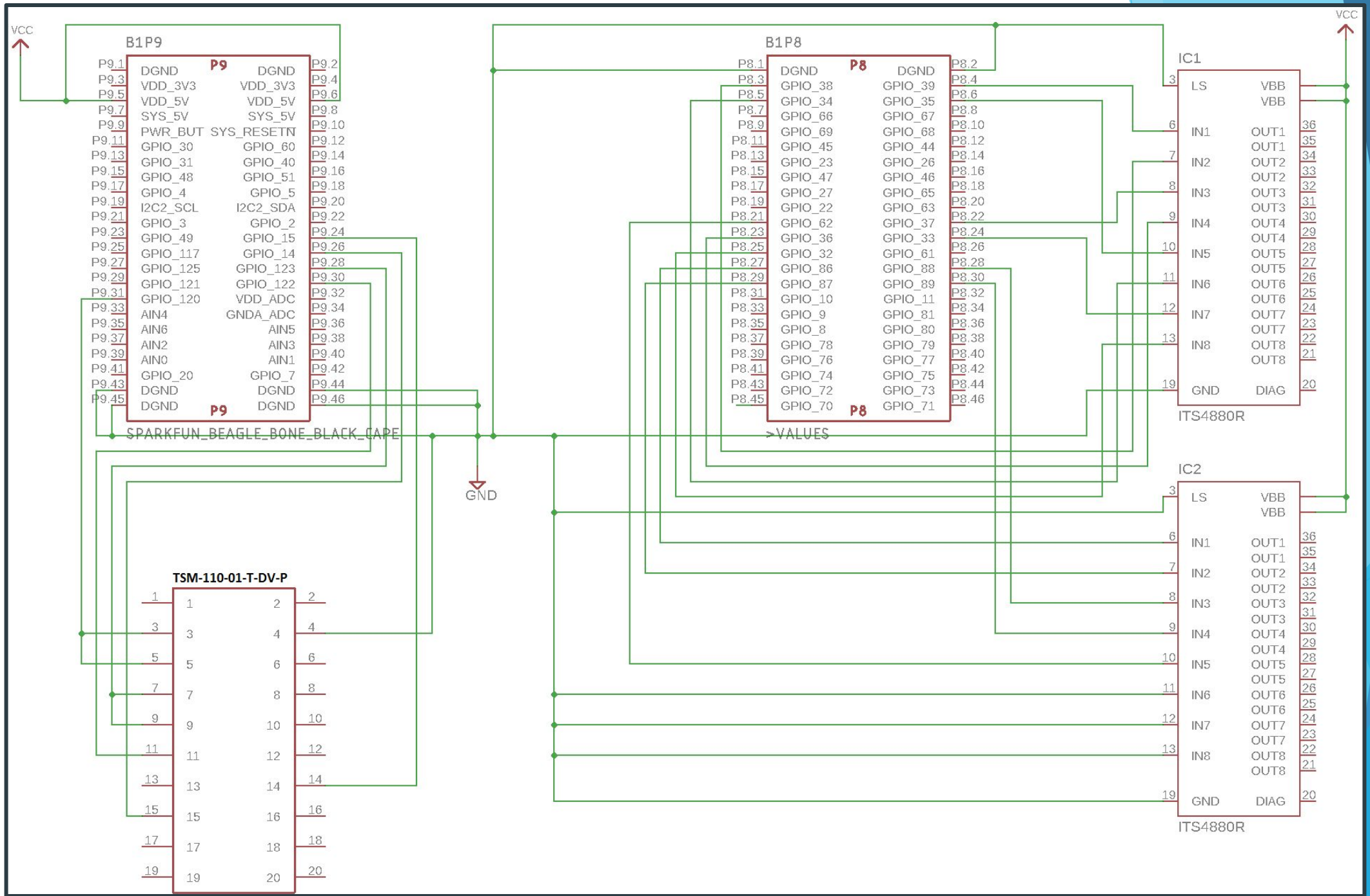
- ▶ Epic - IoTester Refactoring
- ▶ Story points - 8
- ▶ Story Owner - Miroslav Sabo
- ▶ Description
 - ▶ As - a hardware engineer
 - ▶ I need to - create document for board design
 - ▶ So that - we can use it as a guideline for creating final design of our new board
- ▶ Product owner acceptance criteria

Story - Prepare Document for Board Design

- ▶ Tasks Backlog
 - ▶
- ▶ Tasks In Progress
 - ▶ write document
- ▶ Done Tasks
 - ▶ analyzing board
 - ▶ create schematics

Examples





Story - Methodics

- ▶ Story without Epic
- ▶ Story points - 3
- ▶ Story Owner - Stanislav Širka
- ▶ Description
 - ▶ As - a team member
 - ▶ I want to - follow defined rules
 - ▶ So - that I make a minimal number of conflicts in team processes
- ▶ Team acceptance criteria
 - ▶ Create and share methodic documents on Team Web (Tasks Managment, Methodics, Code Versioning, Web Managment)

Story - Methodics

- ▶ Tasks Backlog
 - ▶
- ▶ Tasks In Progress
 - ▶
- ▶ Done Tasks
 - ▶ Create methodic for Methodics
 - ▶ Create methodic for Code Versioning
 - ▶ Create methodic for Web Managment
 - ▶ Create methodic for Tasks Managment

Discussion Time

