SPRINT 6

STU FIIT

KISTLER
measure. analyze. innovate.
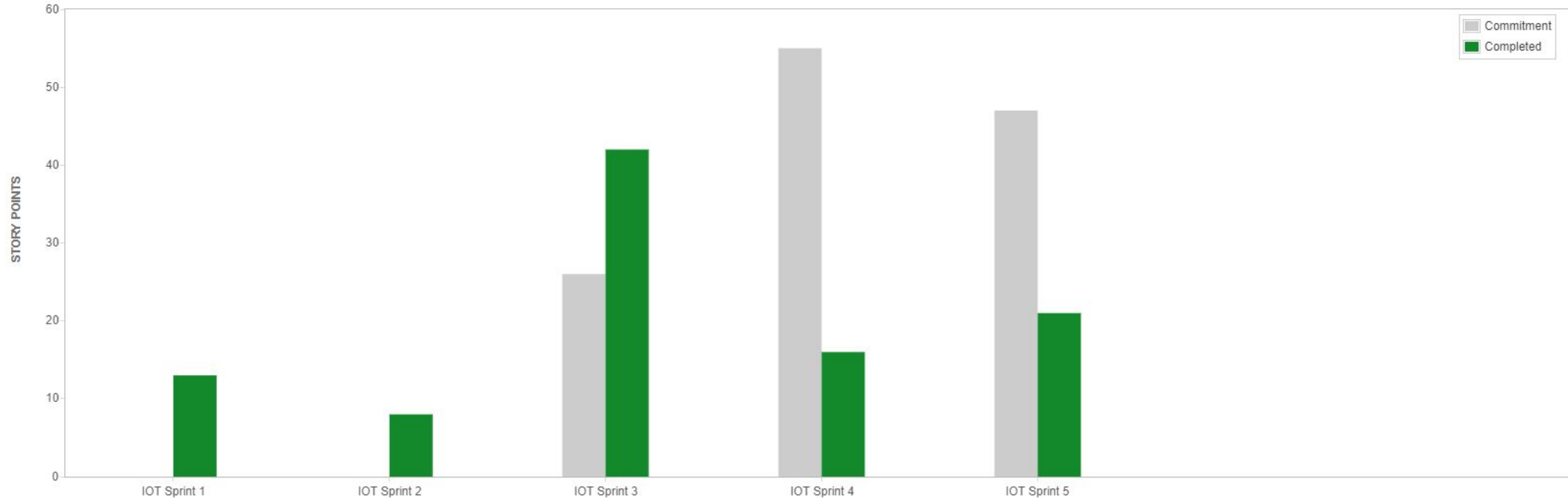
Sprint 3 – Epics and Stories

- **Stories for Epic – ComoNeo Digital Inputs**
  - **Send Data to SPI** (Story Points – 13)
  - **Analyze Memory Limit of PRU** (Story Points – 5)
  - **Analyze Analog Output of DAC** (Story Points – 5)
  - **Interfaces Design** (Story Points – 13)
  - **Robot Framework Test for Testing Cycle Values** (Story Points – ???)

Team Velocity

Sprint	Commitment	Completed
IOT Sprint 1	0	13
IOT Sprint 2	0	8
IOT Sprint 3	26	42
IOT Sprint 4	55	16
IOT Sprint 5	47	21

▶ **This sprint 36 story points?**

Story – Send Data to SPI

► Epic - ComoNeo Analog Inputs

► Story points – 13

► Description

   ► As - a developer

   ► I need to - send simple message to SPI interface

► Product owner acceptance criteria

   ► Prepare a simple program to work with SPI interface - the program is compilable and possible to load into PRU

   ► Enabled SPI and GPIOs which are necessary to control DAC in the device tree

   ► Send simple message to SPI interface (possible to measure it by an oscilloscope)

Story - Send Data to SPI

- ▶ Tasks Backlog
  - ▶ Send constant data to SPI interface
- ▶ Tasks In Progress
  - ▶ Compile and Run Simple SPI program (Filip Starý)
- ▶ Done Tasks
  - ▶ Setup Device Tree (Rastislav Kováč)

Demo - Send Data to SPI

▶ Setup Device Tree

```
pin 93  (PIN93)  44e10974 00000000 pinctrl-single
pin 94  (PIN94)  44e10978 00000033 pinctrl-single
pin 95  (PIN95)  44e1097c 00000033 pinctrl-single
pin 96  (PIN96)  44e10980 0000002d pinctrl-single
pin 97  (PIN97)  44e10984 00000005 pinctrl-single
pin 98  (PIN98)  44e10988 00000030 pinctrl-single
pin 99  (PIN99)  44e1098c 00000030 pinctrl-single
pin 100 (PIN100) 44e10990 00000003 pinctrl-single
pin 101 (PIN101) 44e10994 00000003 pinctrl-single
pin 102 (PIN102) 44e10998 00000003 pinctrl-single
pin 103 (PIN103) 44e1099c 00000003 pinctrl-single
pin 104 (PIN104) 44e109a0 0000002c pinctrl-single
```

Story - Analyze Memory Limit of PRU

- Epic - ComoNeo Analog Inputs
- Story points – 5
- Description
  - As - a developer
  - I need to - measure the size limit of PRU message system
  - To -
- Product owner acceptance criteria
  - Measure PRU message size limit
  - Measure if we are able to write the whole curve to PRU

Story - Analyze Memory Limit of PRU

▶ Tasks Backlog

  ▶ Measure if we are able to write the whole curve to PRU (Tomáš Bujna)

▶ Tasks In Progress

  ▶ …

▶ Done Tasks

  ▶ Measure PRU message size limit (Tomáš Bujna)

Story - Analyze Analog Output of DAC

► Epic - ComoNeo Analog Inputs

► Story points – 5

► Description

  ► 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

► Product owner acceptance criteria

  ► 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

  ► Test checks the ComoNeo web application if the digital input was set

Story - Analyze Analog Output of DAC

- ▶ Product owner acceptance criteria
  - ▶ 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 how to use DACs
  - ▶ Team understands the concept of daisy-chain
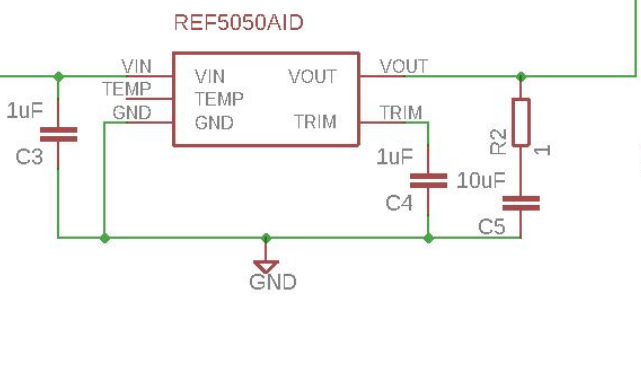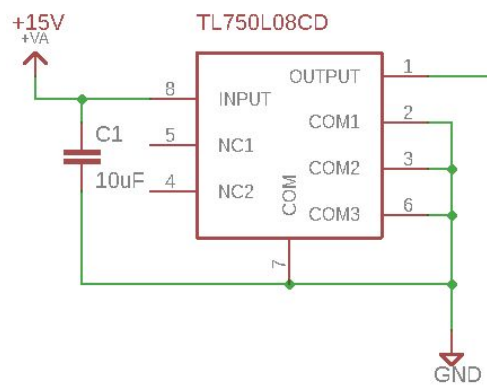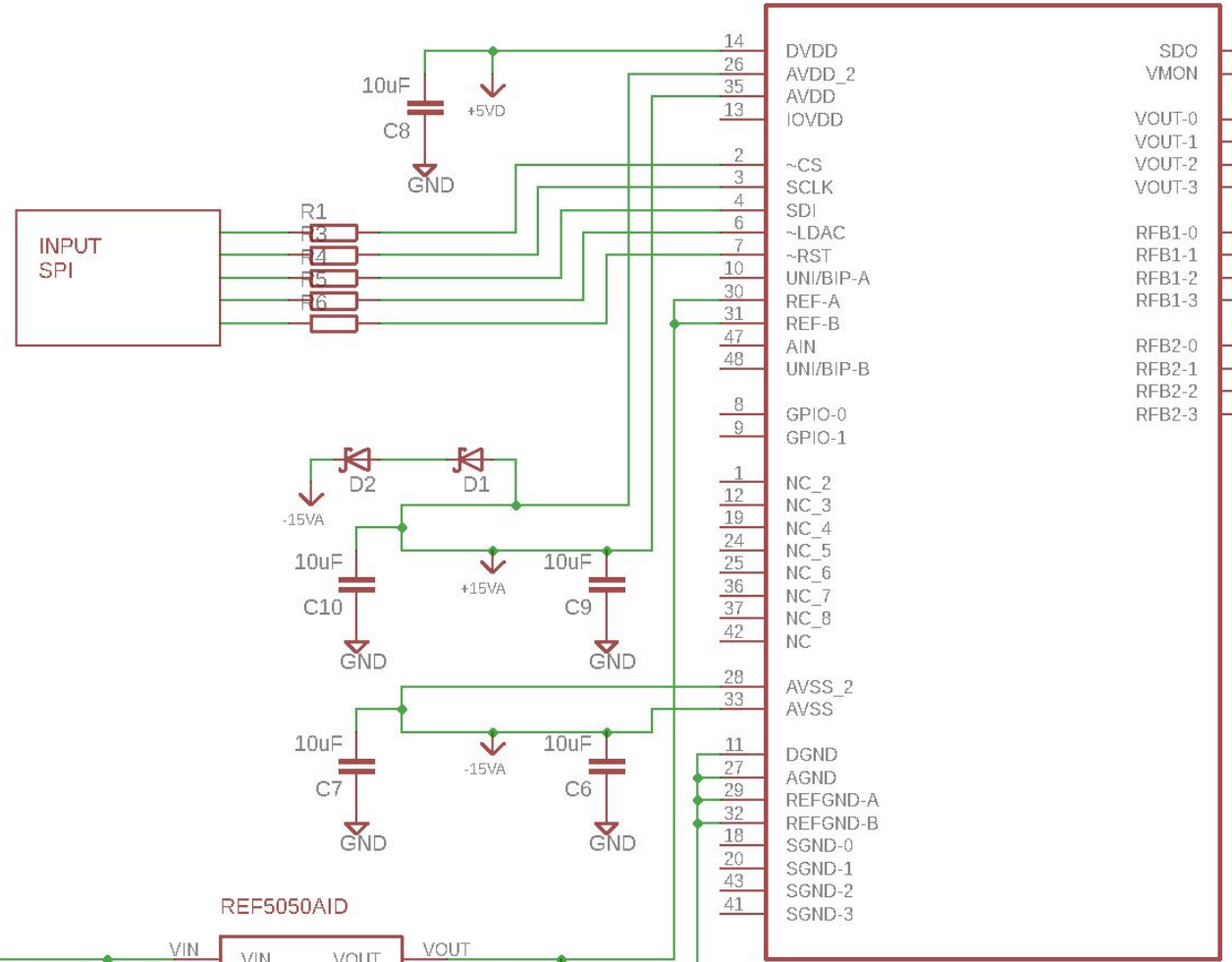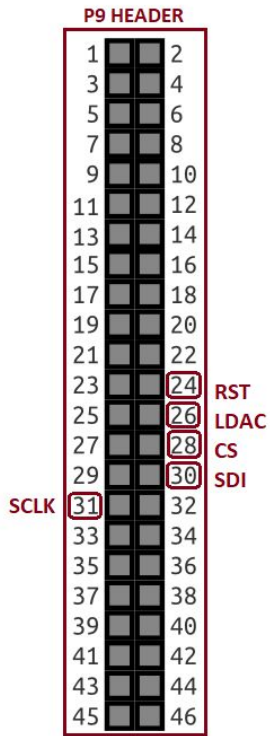
Story - Analyze Analog Output of DAC

- ► Tasks Backlog
  - ► …
- ► Tasks In Progress
  - ► …
- ► Done Tasks
  - ► Basic understanding of DAC (Igor Labát)
  - ► Understand how the DAC chip is connected to the board (Miroslav Sabo)
  - ► Understands daisy-chain concept (Igor Labát)

Story - Interfaces Design

- Epic - ComoNeo Analog Inputs

- Story points – 13

- Description

  - As - a developer of IOTester

  - I need - a design of the communication message between PRU and CPU

  - To -

- Product owner acceptance criteria

  - Message should be easy to use for PRU (no parsing, no caching in PRU, ...)

  - Message will support all digital outputs and analog outputs usable on IoTester

  - Documentation of the message - will contain reasoning

  - The basic idea how to create this message in CPU is described

Story - Interfaces Design

► Tasks Backlog

   ► Design Interface between CPU and PRU

► Tasks In Progress

   ► …

► Done Tasks
   ► Finalyze Interface between COMONEO and BBB (Tomáš Bujna)

Story - Robot Framework Test for Testing Cycle Values

► Epic - ComoNeo Analog Inputs

► Story points – ???

► Story Owner - Marian Ján Franko

► Description

   ► As -

   ► I want to -

   ► To -

► Product owner acceptance criteria

   ► ???

Other Tasks

- Export JIRA tasks (Stanislav Širka)
- New informations in JIRA (Stanislav Širka)
- Prepare Presentation (Stanislav Širka)
- Update Retrospective in Trello (Stanislav Širka)

Discussion Time