ROW5 Sprint 4 Review

ROW Team 5

Amsterdam University of Applied Sciences
https://rescueonwheels.github.io/

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Introduction

Christiaan van Arum	Developer
Raphaël Bunck	Scrum Master
Nino van Galen	Developer
Martijn Vegter	Product Owner

Overview

Sensors and actuators

Sensor(s):

- Distance sensor (ultrasonic sensor HC-SR04).

Actuator(s):

- Custom double axis servo platform.

Other:

- Fisheye lens.

Communication

Rover $\leftrightarrow$ Cockpit:

- Socket.IO.

Rover $\rightarrow$ Tincidunt:

- H.264 over HTTP.

Cockpit $\leftarrow$ Controller:

- Bluetooth;
- USB.

User Interface: Epicenter

Cockpit

oJH0ALisTGebctA_AAAA (::ffff:192.168.0.246)

Rover

dCWxZubMufkwWuTeAAAB (::ffff:192.168.0.246)

Connection Queue

oJH0ALisTGebctA_AAAA
dCWxZubMufkwWuTeAAAB
Connect

User Interface: Chrome

User Interface: Tincidunt

Operational scenario

TODO

Documentation

- Rover Rescue System - Business Case
- Rover Rescue System - (Technical) Documentation
- Rover Rescue System - Manual - Application
- Rover Rescue System - Manual - Epicenter
- Rover Rescue System - Manual - Rover
- Rover Rescue System - Project File
- Rover Rescue System - Sprint Review 1
- Rover Rescue System - Sprint Review 2
- Rover Rescue System - Sprint Review 3
- Rover Rescue System - Sprint Review 4

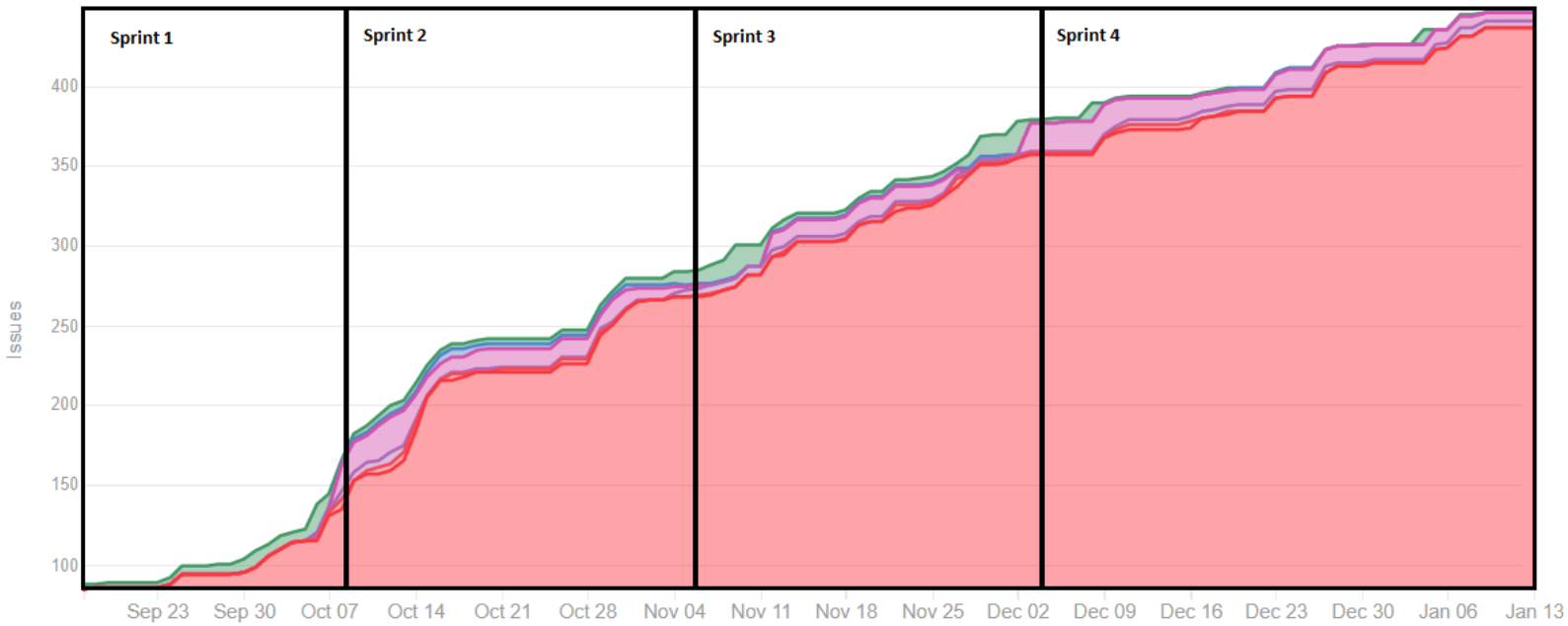
Innovatation

- Virtual Reality as video output;
- Virtual Reality connected to the camera;
- Automated prevention systems:
  - Auto-stop to prevent crashes;
  - Auto-stop based on communication events;
  - Auto-reset of camera view based on communication events;
  - Scalable for large scale operations.

Scrum

- Use of GitHub projects;
- Use of GitHub because of third-party integrations;
- Use of ZenHub for automated issue tracking;
  - Isssues
  - Epics
  - Pull Requests
- Use of ZenHub for Burndown and Velocity tracking;

Scrum: Cumulative Flow



Scrum: Burndown sprint 1

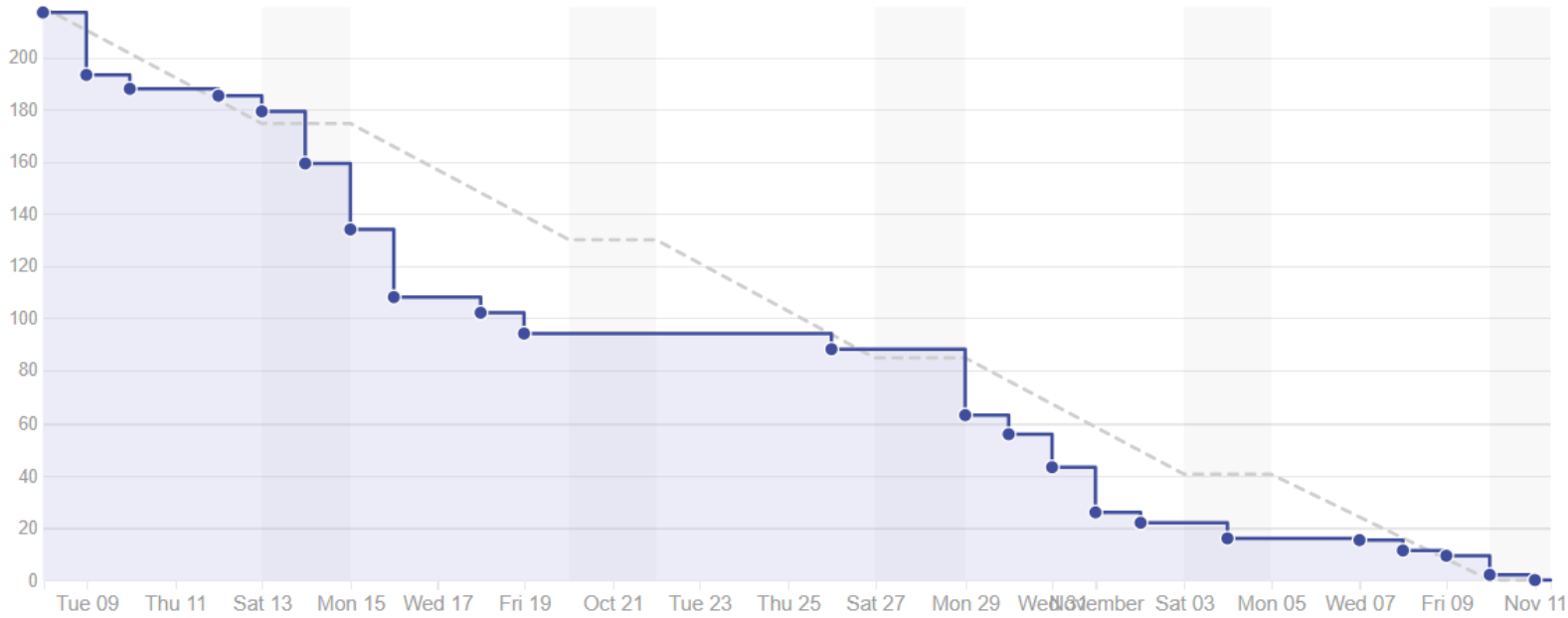
119 Total Story Points

119 Completed / **0** Remaining

72 Total Issues and Pull Requests

72 Completed / **0** Remaining

Scrum: Burndown sprint 2



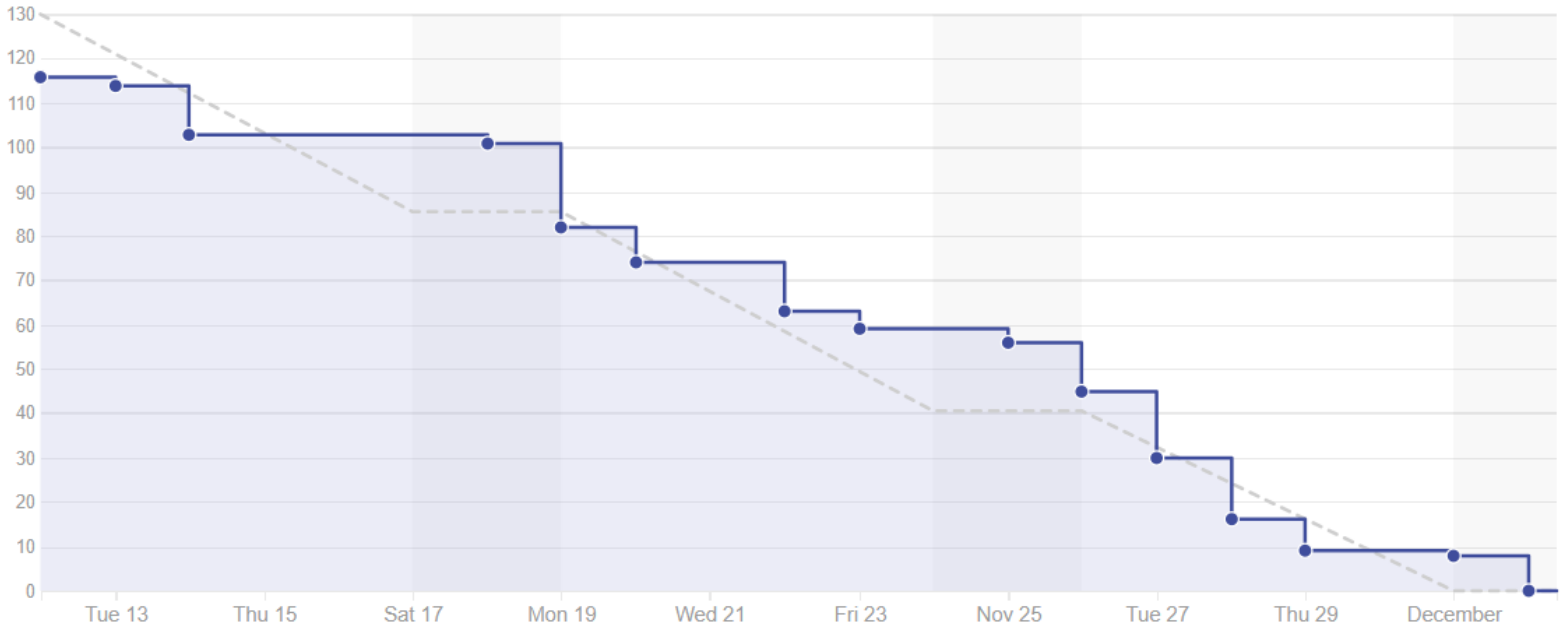
219 Total Story Points

219 Completed / **0** Remaining

150 Total Issues and Pull Requests

150 Completed / **0** Remaining

Scrum: Burndown sprint 3



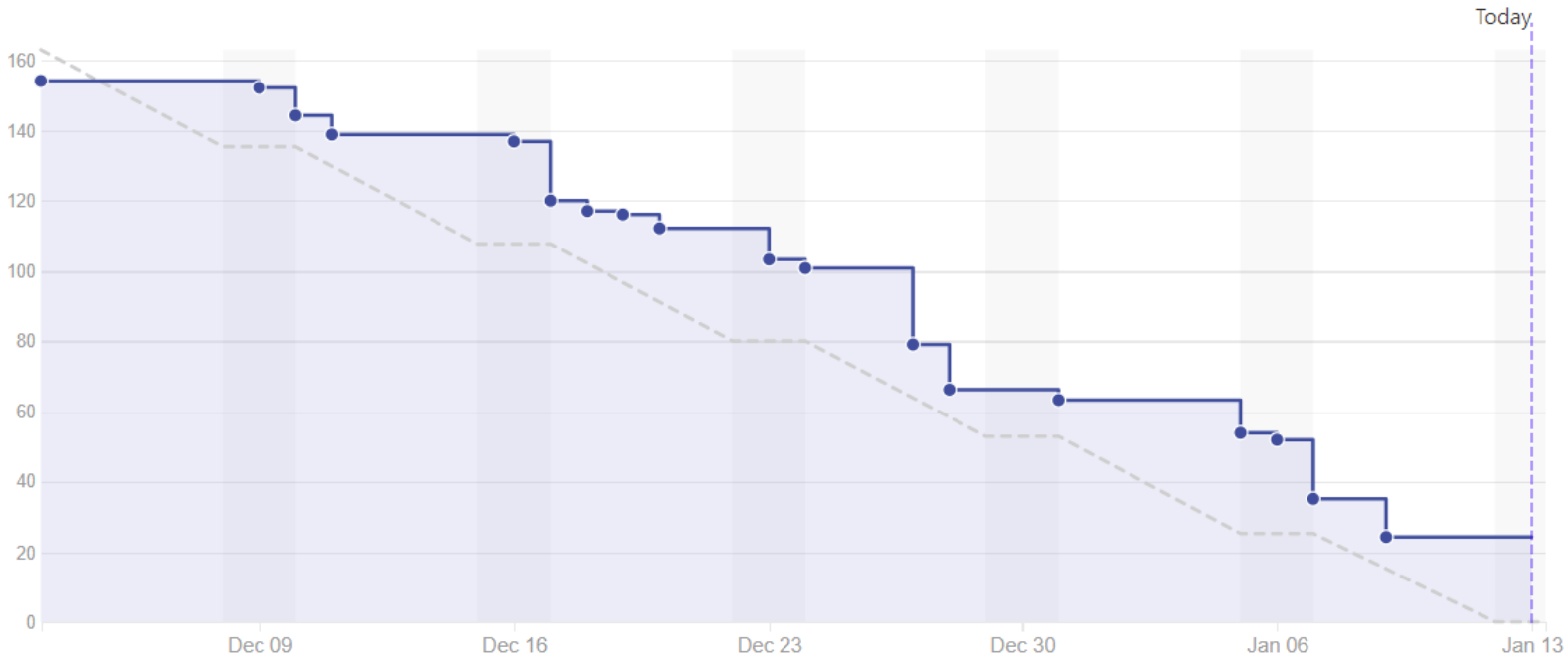
130 Total Story Points

130 Completed / **0** Remaining

74 Total Issues and Pull Requests

74 Completed / **0** Remaining

Scrum: Burndown sprint 4



163 Total Story Points

139 Completed / **24** Remaining

91 Total Issues and Pull Requests

82 Completed / **9** Remaining

Quality assurance

- Use of GIT submodules;
- Custom mocks for simulation usage;
- Protected branches with following rules:
  - Require pull request reviews before merging;
  - Require status checks to pass before merging
    - Travis-CI used for tests and code style;
    - CodeClimate used for unbiased code quality;
    - Coveralls is used for code coverage.
- Definition of Done;
- Definition of Ready.

Any Questions?

The End