

Sprint Review

ROW Team 5

Introduction

actuators

User Interface

Operational scenario

Documentatio

Innovatation

Scrum

Quality assurance

End

ROW5 Sprint 4 Review

ROW Team 5

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

Januari 14, 2019



Introduction

Sprint Review

ROW Team 5

Introduction

Sensors and

Communicati

User Interfac

Operational

Documentati

Innovetation

Quality

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



Overview

Sprint Review

ROW Team 5

Introduction

Sensors and

Communicatio

User Interfac

OSCI IIICCITAC

Scenario

Scrun

Quality assurance

- 1 Introduction
- 2 Sensors and actuators
- 3 Communication
- 4 User Interface
- 5 Operational scenario
- 6 Documentation
- 7 Innovatation
- 8 Scrum
- 9 Quality assurance
- 10 End



Sensors and actuators

Sprint Review

ROW Team 5

Introduction
Sensors and

actuators

Communication

User Interfac

scenario

Documentatio

Innovatation

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Sensor(s):

■ Distance sensor (ultrasonic sensor HC-SR04).

Actuator(s):

Custom double axis servo platform.

Other:

Fisheye lens.



Communication

Sprint Review

ROW Team 5

Introduction

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Communication

User Interface

Operational scenario

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Scrun

Quality assurance

End

 $\mathsf{Rover} \leftrightarrow \mathsf{Cockpit} :$

Socket.IO.

 $\mathsf{Rover} \to \mathsf{Tincidunt} :$

H.264 over HTTP.

 $\mathsf{Cockpit} \leftarrow \mathsf{Controller} :$

- Bluetooth;
- USB.



User Interface: Epicenter

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ROW Team 5

Introduction

Sensors and

Communication

User Interface

scenario

Documentatio

Innovatation

Quality

End

Cockpit

oJH0ALisTGebctA_AAAA (::ffff:192.168.0.246)

Rover

dCWxZubMufkwWuTeAAAB (::ffff:192.168.0.246)

Connection Queue

oJH0ALisTGebctA_AAAA dCWxZubMufkwWuTeAAAB Connect



User Interface: Chrome

Sprint Review

ROW Team 5

Introduction

Sensors and

Communication

User Interface

Operationa scenario

Documentation

Innovatation

Scrum

Quality





User Interface: Tincidunt

Sprint Review

ROW Team 5

Introduction

Sensors and

Communication

User Interface

Operational scenario

Quality





Operational scenario

Sprint Review

ROW Team 5

Introduction

Sensors and

Communication

User Interfac

Operational scenario

Documentation

Innovatation

Quality assurance

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TODO



Documentation

Sprint Review

ROW Team

Introduction

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User Interface

scenario

Documentation

Innamentary

Scrum

Quality assurance

- 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

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Introductio

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Scenario

Innovatation

Quality assurance

- 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

Sprint Review

ROW Team 5

Introductio

Communication

User Interface

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Documentatio

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Scrum

Quality assurance

- 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

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ROW Team 5

Introduction

Sensors and actuators

Communicati

User Interfac

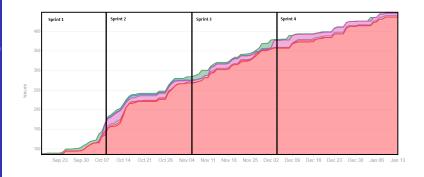
Operational

Documentatio

Innovatation

Scrum

Quality





Sprint Review

ROW Team 5

Introduction

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Scrum

Quality assurance



119 Total Story Points

119 Completed / 0 Remaining

72 Total Issues and Pull Requests

72 Completed / 0 Remaining



Sprint Review

ROW Team 5

Introduction

User Interfac

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Scrum

Quality assurance



219 Total Story Points

219 Completed / 0 Remaining

150 Total Issues and Pull Requests

150 Completed / 0 Remaining



Sprint Review

ROW Team 5

Introduction

Sensors and

Communication

Hear Interfac

Oser Internat

scenario

Scrum

Quality assurance



130 Total Story Points

130 Completed / 0 Remaining

74 Total Issues and Pull Requests

74 Completed / 0 Remaining



Sprint Review

ROW Team 5

Introduction

Sensors and actuators

Communicatio

User Interfac

Documentati

Innovatation

Scrum

Quality

End



163 Total Story Points

139 Completed / 24 Remaining

91 Total Issues and Pull Requests

82 Completed / 9 Remaining



Quality assurance

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ROW Team

Sensors and

Communication

User Interfac

Documentatio

Innovatation

Scrum

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.



Sprint Review

ROW Team 5

Introduction

actuators

Communicatio

User Interface

Operational

Documentatio

Innovetation

Quality

End

Any Questions?



Sprint Review

ROW Team 5

Introduction

Sensors and actuators

Communication

User Interface

Operationa

Documentation

Innovetation

Quality

End

The End