










# Scrum LEGO® Airport

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I already did this Scrum Simulation with several Teams and at different Scrum- and Agile Conferences all over the world. Every time it was a great success, participants had lots of fun, learned insights of not only doing Agile but being Agile, the core of Scrum and what Teamwork really means.

The exercise is for Scrum- & Agile-Newbies as well as for people already familiar with Scrum and Agile.

If you have any questions regarding the Scrum LEGO® Airport please don't hesitate and contact me via eMail: [thorsten@kalnin.net](mailto:thorsten@kalnin.net)

## Background




In the beginning of the year 2011 I had the idea for a Scrum Simulation with LEGO®. A Scrum Simulation which needs to be scalable. Scalable for Teams with different stages of knowledge about Scrum. Useful for Beginners as well as Advanced. Usable as a Simulation for 'easy' Scrum as well as a Simulation for Scrum of Scrums. Feasible to run with 1 to x Teams. Interesting especially for Software Developers and technical Freaks. In addition, people should learn the core of being Agile, Scrum Workflow, it's Artefacts and Meetings by having a lot of fun.

LEGO® is a plaything everybody knows, all around the world. As I'm a certified StrategicPlay® Facilitator, a creative Problem solving Solution with LEGO® based on LEGO® Serious Play, I know how to use LEGO® in a serious context with a joshing course.

An Airport is a complex enterprise system with lots of complex dependencies and lots of technical interfaces. Nearly everybody knows how an Airport works or rather the workflow starting by leaving the car at the parking lot, check in the luggage, receiving a boarding-card till having a seat in a plane. And when arriving at the destination, you want to have your luggage back at the baggage claim.

Hence the idea of a Scrum Simulation with LEGO® in a context of an airport seemed for me an interesting challenge to cover my demand of a scalable approach.

Thus I created the Scrum Simulation, 'Scrum LEGO® Airport' with the following scalable stages:

	Basic Scrum Simulation	90 min
	Advanced Scrum Simulation	180 min / 240 min
	Sim. in combination with Scrum Training	480 min

## Learning Objectives

People get practical Insights of Agile Values as well as a huge grasp of the Scrum Workflow, Situations and Problems hands on. Enhance creative thinking and uncover connections, get a shared understanding and a shared language for Scrum by using LEGO®.

Pragmatic understanding that Agile is a Mindset based on 'Inspect & adapt' and Scrum is about self-organizing Teams, Cooperation, Communication, Understanding, Respecting People, Teamwork, Creativity and Productivity.

Understanding the Scrum Workflow by building valuable products for the customer in each Sprint which can be delivered after every iteration. Understand what needs to be build first so that the customer can start transporting people after the first sprint and add value from Sprint to Sprint so that the enterprise 'Airport' can grow constantly and the customer can grow her business.

## Vision

I'm the owner of FantasyIsland, a very beautiful Island somewhere in the Indian Ocean. This Island is comparable with the Seychelles. As my Island is very attractive, I want to start some tourist traffic. For this reason I want to build an Airport on my Island so that I can start my tourist trade business.

As I already have a rough Vision of an Airport, I created some Requirements including Acceptance Criteria. The Requirements are open and have space for interpretation and are not prioritized. The Team/s are the experts and it's up to them to make Requirements more specific and to prioritize them. But, at the end I'm still the Customer, so the last decision if I like what the Teams deliver and if it is valuable for me is up to me!

The Facilitator of the Session is also representing the Customer. This means, the Customer is available during the whole Session and ProductOwners and ScrumMasters are allowed to ask questions for coordination.

## Requirements

For running the Scrum LEGO® Airport you need a large Set of LEGO® Bricks. My Set contains standard Bricks, Plates, LEGO® Technique, Star Wars and special Bricks.

Here are some Pictures:



In addition, you need 4 different colored StickyNotes.

3 different colors representing the Priorities and one additional color for creating Tasks.

You need a role of tape and Estimation Poker Cards. If you don't have Estimation Poker Cards, let Participants use their Finger for Estimating. But be aware the in this case, all storys should be smaller than 10 StoryPoints. Last but not least you need a Reference Story which represents one StoryPoint. As Reference Story I normally use the Airport car you can see on the right in the first picture of this manual.



## Room SetUp

You need to prepare the Space for running this Session. You can run the Session with up to 60 Participants. For every Team you need a round table with up to 10 chairs max. In addition, every Team need a StoryBoard as shown in the following Picture:





In addition you need a table SetUp for the Lego Bricks. As you can see in the picture above, there is a table in the middle of the room where I arrange all LEGO® Bricks - the development-tools for the Teams.





Prepare one large table for the Sprint Demo's. On this table the Teams are able to prepare and run the Demo and arrange what they have built.



Prepare the ProductBacklog - all Requirements that you have printed out:





## Sequence

Each prepared Table is for one single Team. Ask Participants to self organize. Each Team needs one ScrumMaster and one ProductOwner. All other Participants are part of the Development Team.

Provide all ProductOwners with StickyNotes in the colors for the priorities you can see on the StoryBoard and one additional color for splitting Requirements into Tasks. The StickyNotes for the prioritizing the ProductBacklog should be small ones as they need them just for prioritizing the ProductBacklog.



Explain your Vision to all Participants - you are the Owner of FantasyIsland and want to have an Airport so that you can start your business of transporting Passengers and Tourists to your Island. Create a Story around your Vision.

On the following page you can see the Sequence for the 90 minutes conference Session. Within this format you will be able to do 2 Sprints.

- 🧑 5 min for Introducing the Session and forming Teams
- 🧑 5 min for Introducing your Vision to the ProductOwners at the ProductBacklog while Teams can have a look at the LEGO® Bricks, their development-tools
- 🧑 5 min for the ProductOwners for doing a first Prioritization of the ProductBacklog.
  - After this first step, each ProductOwner takes 3 Requirements from the Backlog

## First Sprint

- 🧑 5 min for an Estimation Meeting
  - ProductOwners post the Requirements on the top of the StoryBoard - the prioritized ProductBacklog-Space
  - Let the Teams do EstimationPoker
  - Teams are allowed to split Story's into Tasks - it's up to the Teams
- 🧑 3 min for the SprintPlanning & Commitment
- 🧑 10 min for the first Sprint - Teams start to build Requirements
  - After 4:30 min give a sign so that Teams can do a really short standup - each TeamMember should answer three questions:
    - What have I built so far?
    - What will I build next?
    - Are there any Impediments?
  - The stand should be max 2:30 min. When finished they can continue the sprint - the stand up meeting is part of the 10 min sprint!
  - After 10 minutes all Teams have to stop building!
- 🧑 2 min for preparing the SprintDemo - Teams shall arrange what they have built at the DemoTable.
  - Teams are just allowed to present Requirements which are really finished
  - After 2 min, the preparation is over - what is not on the table at this moment won't be presented
- 🧑 10 min for the SprintDemo - each Team is having 2 min for presenting what Requirements they had and what they have built.

- 🧑 It's up to the Facilitator, who is also representing the customer, to accept or decline the Requirements.
  - Did the Team deliver value? Have they delivered what is most important for the customer? Is it safe? Change your mind and add details as you like - it's like real life, customer change their minds on a short term.
- 🧑 5 min for a Retrospective
  - Each Team has to do a Retrospective by their own and should create improvements

Do a second Sprint starting with an Estimation Meeting. Are there unfinished Requirements or Tasks which need to be reestimated? If not the ProductOwners are also allowed to present new Requirements to the Team. Do the second Sprint with the same TimeSchedule.

After the second SprintDemo let Teams do again a Retrospective and make a debriefing.

Close the Session.



## Insights

It is very important that you, as the Facilitator, keep the TimeBoxing very strictly. Otherwise the Session will end up in Chaos.

In addition, you are representing the customer. ProductOwners and ScrumMasters are allowed to ask questions all the time. The ScrumMasters should take care that their Teams are keeping the TimeBox and run the Meetings.

Very often, some TeamMembers continue building while the Teams having a Meeting. It's up to the ScrumMasters to take care of that.

Very often, Teams don't communicate with each other. This will end up in Situation where, for example, one Team is building a LandingField but does not take care that another Team is building an Airplane which doesn't fit the size of the Landing Field.

During the Sprint, ProductOwners should work on the ProductBacklog while ScrumMasters take care that their Teams are building the right Requirements.

For me, security is most important - before a Team can build a TwoSeater or something else, I want to have Ambulances and FireBrigades. But I don't tell them - they have to ask! If Teams don't ask and just build something I will decline what they have built as I want to have value.

My ValueStream starts with Ambulances, FireBrigades an Police followed by a Helicopter so that I can start make money by transporting some VIPs to my Island. When you run the Session it's up to you. Participants will learn most when they learn during experiencing...

Try to make the Session as real as possible.

If you want to run the Scrum LEGO® Airport and have any questions, please don't hesitate to contact me: [thorsten@kalnin.net](mailto:thorsten@kalnin.net)