

Sprint 1 Planning

Document status

RELEASED

Version	Description	Author	Date (DD/MM/YYYY)
0.0	First version of the planning document	Sejin Kim	27/08/2020
0.1	updated user stories and tasks	Sejin Kim Che Hao Chang Isaac Pedroza Aguirre Jia Yin AKHTAR KURNIAWAN	28/08/2020
0.2	reformatting	Sejin Kim	28/08/2020
1.0	Some rephrasing and version release.	Isaac Pedroza Aguirre	30/08/2020
1.1	Fill in the user story based on the feedback of the client	Che Hao Chang Isaac Pedroza Aguirre	02 Sep 2020
1.2	Remove Product backlog	Sejin Kim	21/09/2020

Sprint period & focus

The first sprint is from 31 Aug 2020 to 29 Sep 2020, focusing on the implementation of the armour location and armour identification algorithms.

Stories to include in the first sprint

As mentioned earlier, the development team will focus on a basic implementation of the armour location algorithm and armour identification algorithm in the first sprint, specifically for armour location, the team will implement the YOLO algorithm as a machine learning approach.

User stories during the first sprint

#	User story	Priority	Story Points
1	As a participant in the competition, I want my robot to locate the position of the opponent robot's armour in the pictures so that my robot is informed about where to shoot.	High	39
2	As a participant in the competition, I want my robot to identify what is the type of the armour pad the enemy is showing so that my robot is informed about how many points it can score if it successfully shoots to the identified armour.	High	30






Detailed tasks to do

User stories are subdivided into tasks as follows.

#	Task	Approaches	Assigned to	Story Points
1.01	Identify YOLO algorithm structure, input and output types and Python libraries to implement it.		Isaac Pedroza Aguirre AKHTAR KURNIAWAN Jia Yin Che Hao Chang Sejin Kim	3
1.02	Labelling the images for the armour location algorithm.	1. Manually identifying the pixels that cover the opponents' armour. 2. Implement the traditional algorithm to identify the opponents' armour.	Sejin Kim Isaac Pedroza Aguirre AKHTAR KURNIAWAN Jia Yin	12
1.03	Preprocess the images for the armour location algorithm.		Sejin Kim Isaac Pedroza Aguirre AKHTAR KURNIAWAN Jia Yin	6
1.04	Implement the YOLO algorithm using Python.	Use google Colab notebook to use free GPU access.	Che Hao Chang	9
1.05	Augment training data for armour location algorithm.		Sejin Kim Isaac Pedroza Aguirre AKHTAR KURNIAWAN Jia Yin	3
1.06	Training armour location algorithm in the cloud.		Che Hao Chang	6
2.01	Analyse images for the armour identification task and identify approach.		Sejin Kim Isaac Pedroza Aguirre AKHTAR KURNIAWAN Jia Yin	6
2.02	Preprocess the images for the armour identification task.		Sejin Kim Isaac Pedroza Aguirre AKHTAR KURNIAWAN Jia Yin	6
2.03	Implement armour identification algorithm.	Use YOLO as well just add an additional class tag for each element.	Che Hao Chang	9

2.04	Augment training data for armour identification algorithm.		Sejin Kim Isaac Pedroza Aguirre AKHTAR KURNIAWAN Jia Yin	3
2.05	Training armour identification algorithm in the cloud.		Che Hao Chang	6

Page Change History

Version	Published	Changed By		Comment
CURRENT (v. 30)	28 Sep, 2020 03:14		Isaac Pedroza Aguirre	
v. 29	27 Sep, 2020 00:19		Sejin Kim	
v. 28	25 Sep, 2020 14:37		Sejin Kim	
v. 27	21 Sep, 2020 03:13		Sejin Kim	
v. 26	04 Sep, 2020 12:27		Isaac Pedroza Aguirre	

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