



## Farm

Deadline: 16.5.2021

Points: 25

Material requirements: Your robot, a gripper, 5 blue boxes open on one side (at least 5 cm side length), 5 yellow boxes open on one side (at least 5 cm side length), 5 blue balls e.g. pompoms (at least 3 cm), 5 yellow balls e.g. pompoms (at least 3 cm)

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### *Topic description*

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There is always a lot to do on a farm. The fields want to be tilled, animals have to be taken care of and all that in a given time. After all, the animals are used to receive their food at a certain time and the fields would wither if they were not watered in time.

We wish you a lot of fun with this and the following tasks!

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### *Task description*

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- **Set up your farm**

For orientation, look at the picture. Place the grain (yellow balls) on the field, it is ripe and wants to be harvested soon. Place the yellow boxes, your grain boxes, in the barn. Your water boxes (blue boxes) are already filled with water (blue balls) and should be ready for your harvest robot next to the barn. Your cows are in the cowshed and are eagerly waiting to be fed. Your harvesting robot is in the garage and ready to go on your signal. It is allowed (but not obligatory) that you stick a line between the stations that you can follow. Oh, it is getting late now, you only have 3 minutes left to complete the following tasks. Upload us a photo of it.

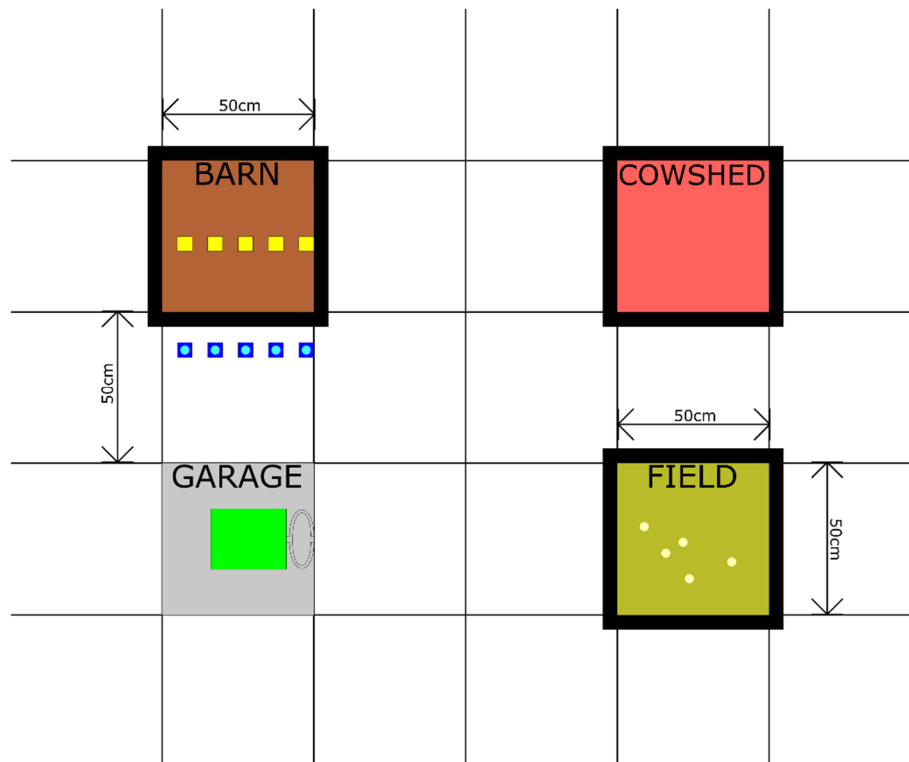


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**ATTENTION! YOU ONLY HAVE 3 MINUTES TO COMPLETE THE FOLLOWING TASK, TASKS COMPLETED AFTER THIS TIME DO NOT COUNT! EVERYTHING YOU MANAGE UNTIL THEN COUNTS OF COURSE.**

- **Harvesting robot**

Complete as many of the following tasks as possible. You can perform the tasks in any order:

- Harvest grain from the field
- Fill grain into the grain boxes
- Bringing grain boxes to the cowshed
- Water the field (only with the water balls - not with the boxes).

Upload us your video and your code!

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## *Evaluation criteria*

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- Photo of the farm
- Video and code of how your robot harvests the field, brings the food to the animals, and irrigates the field.
- Jury evaluation: The jury evaluates the quality of the submission and the creativity of the submission.