

## Internship: multi robot planning

Eurotec is the company behind the Lowpad AMR. The Lowpad is a unique high-tech solution to optimize internal logistic and distribution processes in a wide range of companies. Several different types of robots operate autonomously to move carts and other objects around warehouses and other environments. The Lowpad is equipped with independent driven steering wheels and a multifunctional Lidar camera system. Have a look at: [lowpad.com](http://lowpad.com) to see the robots in action.

### What are we looking for?

We are looking for a student who can independently come up with several possible solutions for one of the below mentioned topics and is able to discuss them with us throughout the search. After choosing a concept a demonstration should be build. Programming your solution in C# is a plus but building a proof of concept in any other language is also possible. We are looking for somebody to work for at least 3 months and at most 6 months, start date preferably February 2021.

#### *Topic 1: Deadlock solving*

The first topic is a planning problem where multiple robots have colliding paths which cause them to get stuck while driving their route. We are looking for a method to solve these situations within a limited available time. The result should find a solution in any scenario where one exists.

#### *Topic 2: Assignment dispatching*

For the second topic, we need to match incoming assignments to the available robots in the most efficient way possible. Calculating routes on a large grid takes time. Smart planning can result in an efficient combination of assignments for a single robot. We are looking for an algorithm that can do the assignment dispatching as efficiently as possible within the available time constraint.

### What's in it for you?

This internship gives you an inside look at the front runner in the area of multi autonomous robot systems in the Netherlands. And an opportunity to see if this line of work is for you. If Covid rules allow, it is possible to work several days a week at our office in Bleskensgraaf. If the internship is successful, the used concept will be implemented in the actual product, so there is a possibility to make an actual difference during this internship. You will be supervised by one of our engineers. We provide a suitable work placement compensation.

### Interested

Please send your CV and a short motivation (max half A4) to this email:

[jacco.vanderspek@eurogroep.com](mailto:jacco.vanderspek@eurogroep.com), any questions can also be directed to this address.

