

## Progress report week 42

This week we completed assignment 2.1 and 2.2. We had some problems with 2.1.

We think that we had a good algorithm and also implemented it in a good way but couldn't get it to work properly because depending on which direction the robot was facing when we ran the program, the calculations would fail. The problem originated in angles being negative/positive (wrapping around  $\pi$ ) and even with help from mentors, the problem seemed too hard to solve. Therefore we changed our approach to the simpler but in our opinion worse way of solving it which is using timed functions to rotate and walk in an arch.

We are currently working on making the robot react when seeing a ball and when a ball disappears from view. We believe we have a good idea to make this work but need to figure out exactly how the wm works for balls and how we can apply it to finding balls. We are looking into the possibility of having a transition depending on the latest frame from the camera and if it includes a ball with area large enough to be an actual ball. After that we want to make the robot keep track of the ball when it has seen it.