# M2_Moving2

## Presentation Outline

1. Milestone 2 achievements
    a. Hardware Results
        i. Updated robot design
            1. Motivation, why? (added sensors, placement for battery and pi, lower color sensor)
            2. Changes and implementation
            3. Video (how the robot walks)
    b. Software results:
        i. System Architecture (UML diagram from Robert) (ASK WILLIE CLASS OR ACTION DIAGRAMM), present components THINK ABT THE SIZE HW CLASS and SW CLASS
        ii. API/ C++ Library try-out -> DON‘T GET TOO TECHNICAL, WHICH FUNCTONS
            1. Functions extension: distance sensor added, discretization of color sensor
            2. First code for sensors and actuators DON‘T SHOW CODE -> DIAGRAM (CONCIDER THE AUDIANCE -> TWO VIDEOS, MAYBE SHOWCASE CODE AND HW
        iii. RL Algorithms : backend component
            1. Present final Algorithm (tbd)
                a. Algorithm research
                    i. Alternatives
                    ii. Why? Motivation (requirements: discrete/ continuous, offline/ online, model-free/model-based..)
                b. How it works? IF NOT COMPFORTABLE EXPLANING IT, DON‘T DO IT -> WHAT CLASS IT IS (OFFLINE or ONLINE), HIGH LEVEL EXPLANATION, NO MATHS
                c. If done, results (reward function results)
                d. UPDATE OBSERVATION: DISTANCE and COLOR functions, REWARD (Which infos go in there INPUTS and OUTPUS) and ACTION SPACE (continuous: torque or discrete -> show decision),
    c. OPTIONAL: Testing *(ask Zied about Action space/ Type of action, use it to test)*
            1. Test Environment: a picture of our test setup NOT OPTIONAL -> MOVE TO HW
            2. Test plan Presentation *(Test plan must be submitted in text form!)* (maybe unit-test for basic operation) 3d Milestone
            3. CI Pipeline/ CI Script to test Coding style 3d MILESTONE

2. Plan Update
    a. Plan for Milestone 3 (Gantt chart) (Define integration test strategy, Implement and test) *(ask pms)*

Yessmine
Robert

Why show the information and why made the decision

at least 9 mn max 11 min -> graded

**Grading**
25 points
5 for slides design: Spelling errors -> Send to Willie for a double check
3 for presentation style: speak freely, look at the audience
7 for the choice of the topics and the depth of the coverage: Is it important
RL Algorithm, Observation, reward and actions
7 for the explanation: how can you explain the content to the audience? Can the audience follow?
3 (same for both participants) for linkage (Roterfaden) Story telling -> think about linking the ideas -> add a why

ToDo:
Ask others for lessons learned of M1
Send slides until Friday next week

course grading
25 presentation
10 points final presentation
15 oral exam: Overall project questions
50 overall project: How many code, how many ideas, how big is workload, 10 points for project role
project workload -> own responsability, go to pm and ask for more tasks