# Period One – Project Plan

# Goals and Tasks for Botball 2019

# Game Goals and Tasks

- 2019-02-18: Build practice arena
  - 2019-01-28: Buy all essential items (tape, PVC, corrugated plastic)
  - o 2019-01-28: Cut all PVC pieces
  - o 2019-01-28: Assemble arena PVC frame
  - 2019-01-30: Cut corrugated plastic and glue buildings
  - o 2019-02-18: Finish taping the tape
  - o 2019-02-18: Finish arena
  - 2019-03-11: Develop strategy
    - o 2019-01-20: Brainstorm rough strategy and task division
    - o 2019-03-11: Fine tune and finish strategy
- 2019-03-25: Enforce game rules
  - o 2019-02-19: Read all rules and try to memorize them
  - o 2019-03-25: Check if both robots comply with the rules

# Robot Buildings Goals and Tasks

- 2019-03-25: Small robot construction
  - 2019-03-04: Find suitable wheel configuration for optimal mobility
  - 2019-03-11: Build first version of "Water" grabbing device
  - o 2019-03-25: Refine all components until optimal
- 2019-04-01: Create robot construction
  - o 2019-03-04: Finish collection cage
  - o 2019-03-18: Finish retractable arm and methods for rescuing the lower citizens
  - o 2019-04-01: Finish methods to rescue the top citizens and maybe the botguy and / or the mayor
- 2019-04-01: Stable construction and behavior
  - o 2019-03-25: Have prototypes of all parts
  - o 2019-04-01: Reinforce parts

# Programming Goals and Tasks

- 2019-03-03: Be able to move precisely
  - o 2019-02-28: Write program to tune the motor speeds
  - o 2019-03-02: Have tuned motors
  - 2019-03-03: Write movement functions in go
  - 2019-04-01: Write code for the small robot in the Go programming language
    - $\circ\quad$  2019-02-11: Port the c wallaby library to Go
    - 2019-03-11: Rough movement prototype
    - o 2019-04-01: Write game movement routine for small robot in Go
- 2019-04-01: Write code for Create robot in C
  - 2019-03-03: Figure out how to turn precisely
  - o 2019-03-11: Rough movement prototype
  - o 2019-04-01: Finish movement routine

# Documentation Goals and Tasks

- 2019-02-20: First period documentation
  - 2019-02-18: Completely forget about the submission

All dates are formatted according to ISO 8601

- 2019-02-19: Don't plan anything. Team leader decides everything as he writes the Project Plan.
  Write 75%
- o 2019-02-20: Finish the last 25%
- 2019-03-19: Second period documentation
  - o 2019-02-25: Decide who writes the Mechanical and Code Review document
  - o 2019-03-03: Author writes as much as he can / knows
  - o 2019-03-04: Author talks to other team members during the meeting to gather information
  - 2019-03-19: Author finishes the document
- 2019-04-04: Third period documentation
  - o 2019-03-11: Pick a team member to write the Lessons Learned and Survey document
  - o 2019-03-24: Authors writes as much as he can / knows
  - $\circ$  2019-03-25: Author talks to other team me members during the meeting to gather information
  - o 2019-04-04: Author finishes the document

#### Schedule Conflicts

- 2019-02-04 2019-02-09: Holiday; Semester break -> Cannot meet
- 2019-02-25: Interruption; Doctor appointment -> Team leader cannot show up
- 2019-03-25 2019-04-12: Interruption; Testing season begin -> Some team members may have to study

# Team Organization

#### Schedule of Meeting Times

2019-18-01: Botball Bootcamp 2019-04-08 – 2019-04-12: Botball Tournament

Meeting every Monday from 16:15 to 18:40

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Jan																															
Feb																															
Mar																															
Apr																															
		N/A				Meeting					Bootcamp						Tournament							Holiday							

# Task Sharing

Team Supervisor: Hammerl Walter Team Leader: Wendelin Muth Small Robot Team:

> Lukas Marx – Building Wendelin Muth – Building and programming

Create Robot Team:

Maximilian Mayrhofer – Building and programming Christina Hahn – Building

Documentation: Everyone / Mixed

# **Conflict Resolution**

- 1. Wait for the conflict to settle by itself
- 2. Team leader steps in and says what to do