

0.1 Stage division

Why divide the project up into multiple smaller stages? It means that there will be multiple deadlines, this helps keep the project on track. Keeping the project on track in the early stages contributes to the final stages where more issues may occur, this means that there is always a working earlier version to showcase if it becomes necessary. It is also easier for both the customer and the development team to see how the project will turn out and if there are any design mistakes that have to be changed before the final version.

It is important for this method to work, that each stage is clearly defined. This ensures that all features for each stage are implemented.

The below list contains all the requirements of functionalities for each stage. It is not an implementation list.

Stage 1: Basic movement

- The forklift should move unrestricted in any direction.
- The forklift should be powered by a battery.

Stage 2: Line following

- The forklift movement should be restricted to a pre-defined path.
- The path should be a line on the floor.
- The forklift should stop moving if there is an obstacle in its path.
- The forklift platform is solid with no risk of electronic or mechanical parts getting lost.

Stage 3: Pallet placement

- The forks on the forklift should be able to move up and down.
- The forklift should be able to pick up a pallet by itself.
- The forklift should be able to place a pallet by itself.
- The pick up and placement should be in predefined locations.

The functionalities are not restricted to a specific stage. It is fine that if a functionality can be implemented before the beginning of its related stage. The only requirement is that the required functionalities for the current stage are completed before the deadline of the stage.