Handover Plan

Introduction

This document details the handover of this project. This will be based on the definitions of the deliverables in the agreed upon project specification.

Time of Handover

Handover will happen in the first exam week, no later than Friday 15 November.

Deliverables

Design Documentation

Detailed process documentation, including ideation, morphological table and scoring matrix to determine possible designs. This would be justified by calculations and drawings encapsulated in a report.

To be delivered:

- Main report including:
  - The above-mentioned process documentation
  - List of other delivered files
- Supporting documents attached
  - Excel sheet with scoring matrix
  - Any other relevant documents…
- List of personal contributions for each team member

Mechanical Design

Built upon the existing CAD model provided by UTSMS to include the new steering actuating system, which is compliant with the new rules and regulations.

To be delivered:

- CAD models of all designed parts.
- CAD assembly of car fitted with designed parts.
- FEA of motor mount.
- Excel sheet with torque calculations.
- Excel sheet with belt and gear calculations.

Mechatronic Design

Selection of an appropriate motor and motor controller. Source hardware and develop software for a control unit that must be compatible with the pre-existing UTSMS-customised CAN bus line (2.0).

To be delivered:

- Report including:
    - Introduction to chosen components
    - Links to relevant documentation

Quick-start guide with step-by-step instructions for running the motor

    - Recommendations for future development
- Collected reference documents for development
- Any developed code for STM32 microcontroller

Manufacturing Documentation

Finished manufacturing drawings, bill of materials and budget.

To be delivered:

- Manufacturing drawings
- Bill of materials with budget

Physical Prototype

Physical 1:1 prototype of some of the key components. Must allocate time for special parts (such as PCB, motor, etc.) to be prepared in advance to meet deadlines.

Stretch goal: Manufacturing of full setup.

To be delivered:

- AK80-9 motor + STM32 microcontrollers + additional electronic components
- 3D print of motor mount
- 3D print of mounting wedge
- 3D print of casing/enclosure