1. Customer / Market

2. Time frame

3. Goals

3.1. Purpose

3.2. Benefit

4. Application of product

4.1. Area(s) of application

4.2. Users, stakeholders

4.3. As-is processes

4.4. Supported to-be processes

5. Product functionality

5.1. All functions, described from the point of view of the user

5.2. Detailed input / output, user interface

6. Product data

6.1. Quantity structure

6.2. Demands on hardware, software, interfaces

7. Product performance

7.1. Response times, battery life time...

8. Quality specifications

8.1. Usability, reliability, efficiency …

1. Customer / Market

* Wide range of market
  + Every device from a fan over a video recorder to cooker can be switched on/off after countdown time
* households

2. Time frame

* 11.06.2014 Presentation of concept
* 25.06.2014 Final presentation, due date for all deliverables

3. Goals

3.1. Purpose

* Intuitive handling
* Switch on/off a device after a time one can choose
* Simple menu
* Clock
* Adjustable timers
* Choose if a device should turn on or off after countdown
* Turn on/off on every time
* Countdown displayed
* Additional status LED shows if a device is on/off

3.2. Benefit

* Save electricity
* No need to be there for switching a device on/off at a specific time
* No time wasting for waiting

4. Application of product

4.1. Area(s) of application

* Automation of kitchen/household devices
* Automation of TV/video recorder/audio system

4.2. Users, stakeholders

* households

4.3. As-is processes

4.4. Supported to-be processes

5. Product functionality

5.1. All functions, described from the point of view of the user

* Clock (with adjustable time)
* Clock timer for two devices
* Switch for two devices (on/off)

5.2. Detailed input / output, user interface

* Input: Joystick (up, down, right, left, press), num-keypad: (0-9, \*, #)
* Output: One-line display, 2 relays (with status LED), Buzzer
* User interface: one-line discriptions of the actual states
  + TIME: “88:88”
  + DEVICE ONE ON: “D1 ON”
  + DEVICE ONE OFF: “D1 OFF”
  + DEVICE ONE COUNTDOWN: “D1 88:88”
  + DEVICE TWO ON: “D2 ON”
  + DEVICE TWO OFF: “D2 OFF”
  + DEVICE TWO COUNTDOWN: “D2 88:88”
  + SET TIME: “SET T”
  + LEAVE MENU: “BACK”
  + SETTINGS TIMER ONE: “SET T1”
  + SETTINGS TIMER TWO: “SET T2”
  + SOUND: “SOUND”
  + SET COUNTDOWN: “SET CNT”
  + SET COUNTDOWN: “SET CNT”
  + SET COUNTER ON: “ON”
  + SET COUNTER OFF: “OFF”
  + KEYPAD INPUT: “88:88” (Actual digit blinking)
  + Acoustic feedback for switching between states
  + Acoustic feedback for entry acknowledgement

6. Product data

6.1. Quantity structure

* 2 relays with 230V/25A (???) each
* 1 display with 6 characters in one line
* 1 buzzer
* 1 joystick
* 1 keypad

6.2. Demands on hardware, software, interfaces

7. Product performance

7.1. Response times, battery life time...

* Response time < 1sec
* Battery life time ???

8. Quality specifications

8.1. Usability, reliability, efficiency …