App.c

| Function name | App\_Init |
| --- | --- |
| Arguments | Input |
| Output |
| input/Output |
| Return |  |
| Description | Called by main and initialize the required hardware drivers |

| Function name | App\_update |
| --- | --- |
| Arguments | Input |
| Output |
| Input/Output |
| Return |  |
| Description | Called by main and has the main loop that execute the application |

keypad.c

| Function name | KEYPAD\_u8Init | |
| --- | --- | --- |
| Arguments | Input | |
| Output | |
| Input/Output | |
| Return | KEYPAD\_ERR | 0 |
| KEYPAD\_OK | 1 |
| Description | Initializes the used timer and sets the DIO direction of the rows and columns | |

| Function name | KEYPAD\_u8GetKey | | | |
| --- | --- | --- | --- | --- |
| Arguments | Input | | | |
| Output | | key | uint8\* |
| Holds the value of the returned key | |
| Input/Output | | | |
| Return | KEYPAD\_ERR | 0 | | |
| KEYPAD\_OK | 1 | | |
| Description | Returns current pressed key based on a state machine | | | |

LCD.c

| Function name | LCD\_u8Init | |
| --- | --- | --- |
| Arguments | Input | |
| Output | |
| Input/Output | |
| Return | LCD\_ERR | 0 |
| LCD\_OK | 1 |
| Description | Initializes the used timer and sets the DIO direction of the LCD pins and enqueues the init commands | |

| Function name | LCD\_u8SendCommand | | | |
| --- | --- | --- | --- | --- |
| Arguments | Input | | command | uint8\_t |
| The command that will be send to the LCD | |
| Output | | | |
| Input/Output | | | |
| Return | LCD\_ERR | 0 | | |
| LCD\_OK | 1 | | |
| Description | Adds the sent command to the queue | | | |

| Function name | LCD\_u8SendData | | | |
| --- | --- | --- | --- | --- |
| Arguments | Input | | data | uint8\_t |
| The data that will be sent to the LCD | |
| Output | | | |
| Input/Output | | | |
| Return | LCD\_ERR | 0 | | |
| LCD\_OK | 1 | | |
| Description | Adds the sent data byte to the queue | | | |

| Function name | LCD\_u8SendNumber | | | |
| --- | --- | --- | --- | --- |
| Arguments | Input | | num | uint16\_t |
| The number that will be sent to the LCD | |
| Output | | | |
| Input/Output | | | |
| Return | LCD\_ERR | 0 | | |
| LCD\_OK | 1 | | |
| Description | Sends a number to the LCD | | | |

| Function name | LCD\_u8SendString | | | |
| --- | --- | --- | --- | --- |
| Arguments | Input | | str | uint8\_t\* |
| A pointer to the string that will be sent to the LCD | |
| Output | | | |
| Input/Output | | | |
| Return | LCD\_ERR | 0 | | |
| LCD\_OK | 1 | | |
| Description | Sends a string to the LCD | | | |

| Function name | LCD\_u8SetCursor | | | |
| --- | --- | --- | --- | --- |
| Arguments | Input | | row | uint8\_t |
| The row to set the cursor at | |
| col | uint8\_t |
| The column to set the cursor at | |
| Output | | | |
| Input/Output | | | |
| Return | LCD\_ERR | 0 | | |
| LCD\_OK | 1 | | |
| Description | Sets the cursor at a specific row and column | | | |