

SmartPets

Generated by Doxygen 1.8.15



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## Chapter 1

# SmartPets

Control system for a smart hamster cage



## Chapter 2

# Data Structure Index

### 2.1 Data Structures

Here are the data structures with brief descriptions:

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## Chapter 3

# Data Structure Documentation

### 3.1 Bargraph Struct Reference

```
#include <GUI_Utility.h>
```

#### Data Fields

- unsigned short **posX**
- unsigned short **posY**
- unsigned short **width**
- unsigned short **height**
- unsigned short **background**
- char \* **label**

#### 3.1.1 Detailed Description

This struct contains properties related to a BARGRAPH

The documentation for this struct was generated from the following file:

- GUI\_Utility.h

### 3.2 Button Struct Reference

```
#include <GUI_Utility.h>
```

#### Data Fields

- unsigned short **posX**
- unsigned short **posY**
- unsigned short **width**
- unsigned short **height**
- char \* **label**
- char **navigation**
- [Functionality](#) \* **funtionality**

### 3.2.1 Detailed Description

This struct contains properties related to a BUTTON

The documentation for this struct was generated from the following file:

- GUI\_Utility.h

## 3.3 Clock Struct Reference

```
#include <GUI_Utility.h>
```

### Data Fields

- unsigned short **posX**
- unsigned short **posY**
- unsigned short **hour**
- unsigned short **minute**
- unsigned short **second**
- unsigned char **programRunning**
- unsigned short **tic**
- unsigned short **toc**
- unsigned int **elapsed\_t**

### 3.3.1 Detailed Description

This struct contains properties related to a CLOCK

The documentation for this struct was generated from the following file:

- GUI\_Utility.h

## 3.4 Functionality Struct Reference

```
#include <GUI_Utility.h>
```

### Data Fields

- unsigned char **pin**
- GPIO\_TypeDef \* **base**
- unsigned char **state**
- unsigned char \* **type**

### 3.4.1 Detailed Description

This struct contains properties related to a FUNCTIONALITY of a BUTTON

The documentation for this struct was generated from the following file:

- GUI\_Utility.h

## 3.5 Program Struct Reference

```
#include <GUI_Utility.h>
```

### Data Fields

- unsigned short **hour**
- unsigned short **minute**
- unsigned char **programRunning**
- GPIO\_InitTypeDef \*\* **pin**

### 3.5.1 Detailed Description

This struct contains properties related to a PROGRAM (Day, Night, Play)

The documentation for this struct was generated from the following file:

- GUI\_Utility.h

## 3.6 ScreenLabel Struct Reference

```
#include <GUI_Utility.h>
```

### Data Fields

- unsigned short **posX**
- unsigned short **posY**
- char \* **name**

### 3.6.1 Detailed Description

This struct contains properties related to a SCREEN LABEL

The documentation for this struct was generated from the following file:

- GUI\_Utility.h



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