Lyra API Documentation

GPIO

GPIO is controlled with the following API calls:

GPIO_Init()

```
int GPIO_Init( uint16_t GPIOx,

               uint16_t Pin,

               uint16_t Direction)
```

- **Description** : Initializes a GPIO port pin to be general purpose Output or Input.
- **Parameters** :
  - `GPIOx` - GPIO controller to be initialized. Accepts 0, 1 or GPIOA, GPIOB
  - `Pin` - Pin to be configured
  - `Direction` - OUT / IN
- **Return** :
  - Returns `0` on successful configuration.
  - Returns `-1` on invalid argument input

GPIO_SetPin()

```
int GPIO_SetPin( uint16_t GPIOx,

                 uint16_t Pin)
```

- **Description** : Writes a digital HIGH to GPIO Pin configured as Output.
- **Parameters** :
  - `GPIOx` - GPIO controller. Accepts 0, 1 or GPIOA, GPIOB
  - `Pin` - Pin to be written
- **Return** :
  - Returns `0` on successful configuration.
  - Returns `-1` on invalid argument input

GPIO_ResetPin()

```
int GPIO_ResetPin( uint16_t GPIOx,

                   uint16_t Pin)
```

- **Description** : Writes a digital LOW to GPIO Pin configured as Output.
- **Parameters** :
  - `GPIOx` - GPIO controller. Accepts 0, 1 or GPIOA, GPIOB
  - `Pin` - Pin to be written
- **Return** :
  - Returns `0` on successful configuration.
  - Returns `-1` on invalid argument input

GPIO_TogglePin()

```
int GPIO_TogglePin( uint16_t GPIOx,
                    uint16_t Pin)
```

- **Description** : Toggles the specified Pin (configured as Output) from last configured output state.
- **Parameters** :
  - `GPIOx` - GPIO controller. Accepts 0, 1 or GPIOA, GPIOB
  - `Pin` - Pin to be toggled
- **Return** :
  - Returns `0` on successful configuration.
  - Returns `-1` on invalid argument input

GPIO_ReadPin()

```
int GPIO_ReadPin( uint16_t GPIOx,
                  uint16_t Pin)
```

- **Description** : Reads the data for pin configured as digital Input.
- **Parameters** :
  - `GPIOx` - GPIO controller. Accepts 0, 1 or GPIOA, GPIOB
  - `Pin` - Pin to be toggled
- **Return** :
  - Returns `1` for a a logical HIGH.
  - Returns `0` for a logical LOW.
  - Returns `-1` for invalid argument input