

# GPS\_Module

## Module Responsibility :

- Receive location data via UART
- Extract location and time information.

## Output :

- Provide location data to the rest of the system

## Module Design

<<block>>

GPS

<<Parameters>>

```
- typedef struct
{
    uint32_t baud_rate;
    UART_Port_t uart_port;
    GPIO_Pin_t tx_pin;
    GPIO_Pin_t rx_pin;
    uint32_t update_rate_ms;
} Gps_Config_t;
```

```
- typedef struct
{
    float latitude;
    float longitude;
    float altitude;
} Gps_Location_t;
```

<<Function>>

```
~Gps_Init(const GPS_Config_t *config) : void
~Gps_Status_t Gps_GetLocation(GPS_Location_t *location) : void
```