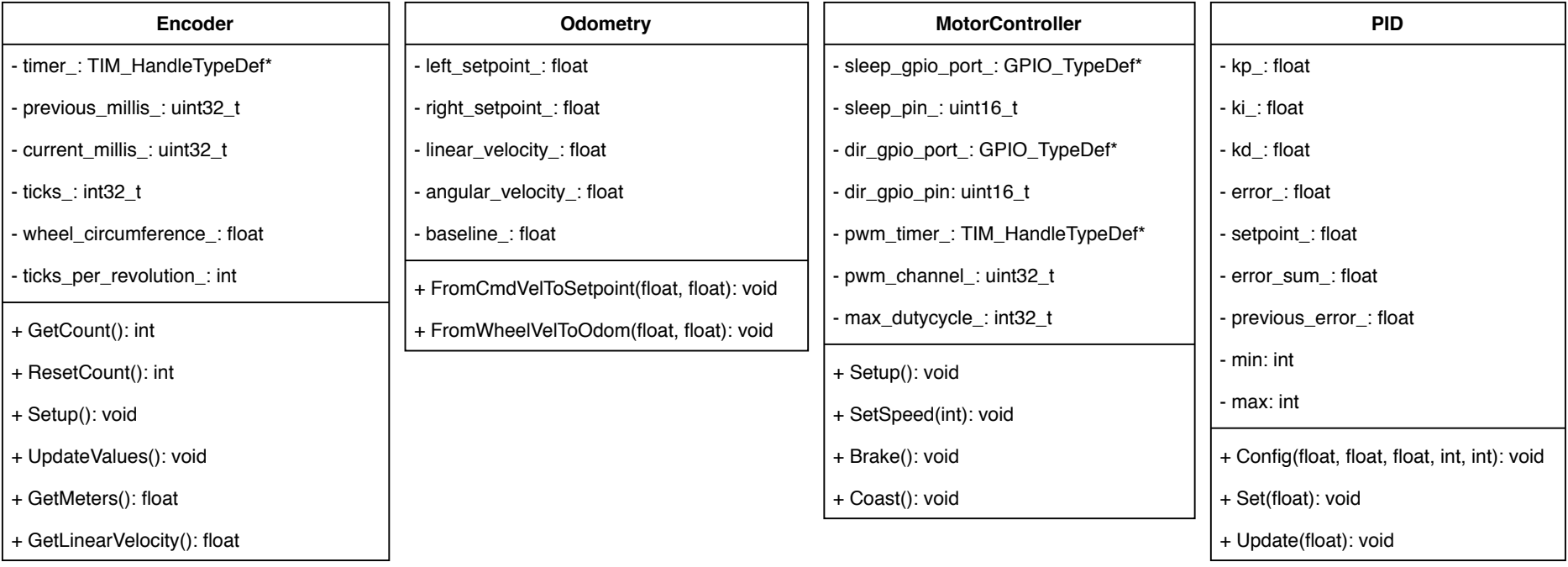
Encoder
- timer_: TIM_HandleTypeDef*
- previous_millis_: uint32_t
- current_millis_: uint32_t
- ticks_: int32_t
- wheel_circumference_: float
- ticks_per_revolution_: int
+ GetCount(): int
+ ResetCount(): int
+ Setup(): void
+ UpdateValues(): void
+ GetMeters(): float
+ GetLinearVelocity(): float
Odometry
- left_setpoint_: float
- right_setpoint_: float
- linear_velocity_: float
- angular_velocity_: float
- baseline_: float
+ FromCmdVelToSetpoint(float, float): void
+ FromWheelVelToOdom(float, float): void
MotorController
- sleep_gpio_port_: GPIO_TypeDef*
- sleep_pin_: uint16_t
- dir_gpio_port_: GPIO_TypeDef*
- dir_gpio_pin: uint16_t
- pwm_timer_: TIM_HandleTypeDef*
- pwm_channel_: uint32_t
- max_dutycycle_: int32_t
+ Setup(): void
+ SetSpeed(int): void
+ Brake(): void
+ Coast(): void
PID
- kp_: float
- ki_: float
- kd_: float
- error_: float
- setpoint_: float
- error_sum_: float
- previous_error_: float
- min: int
- max: int
+ Config(float, float, float, int, int): void
+ Set(float): void
+ Update(float): void