**Port Assignment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Class | Port | Use | Source | Generations |
| Encoder | PA0 | Driving Motor EncA | TIM 2 | - |
| PA1 | Driving Motor EncB | - |
| PE9 | Gimbal Motor EncA | TIM 1 | - |
| PE11 | Gimbal Motor EncB | - |
| Com Module | PB6 | Gyro SCL | I2C 1 | - |
| PB7 | Gyro SDA | - |
| PA9 | Bluetooth TxD | USART 1 | - |
| PA10 | Bluetooth RxD | - |
| PA2 | Actuator TxD/RxD | USART 2 | - |
| PA3 | Actuator Rx  (F.D. Mode) | - |
| Photo Sensor | PE2 | Photo Sensor 1 | GPIO | - |
| PE3 | Photo Sensor 2 | - |
| Gimbal Motor | PD12 | Gimbal Motor PWM 1 | TIM 3 |
| PD13 | Gimbal Motor Dir 1 |
| PD14 | Gimbal Motor PWM 2 |
| PD15 | Gimbal Motor Dir 2 |
| Driving Motor | PD10 | Driving Motor PWM | TIM 4 |
| PD11 | Driving Motor Dir |
| Flywheel Motor | PA6 | Flywheel PWM 1 | TIM 5 |
| PA7 | Flywheel PWM 2 |
| Control | - | - | - | TIM 8 |