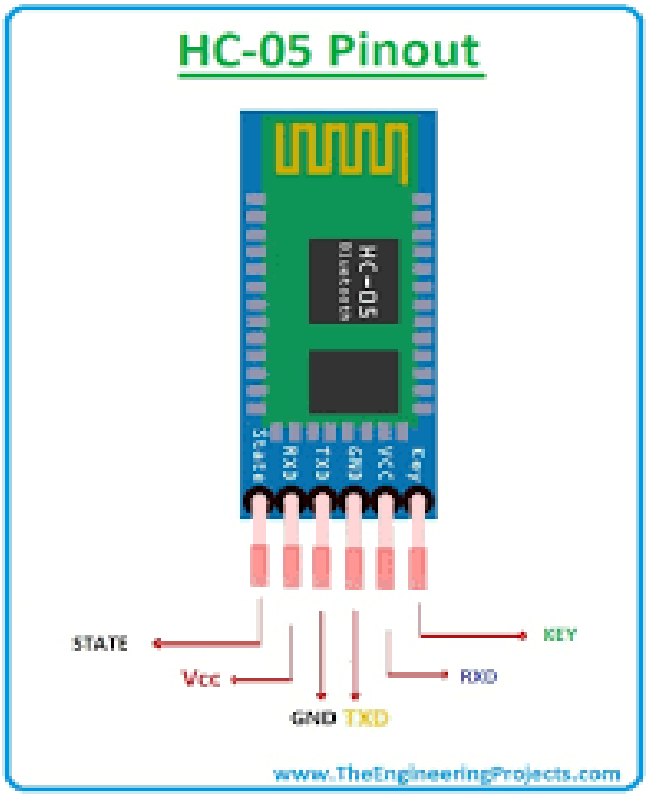
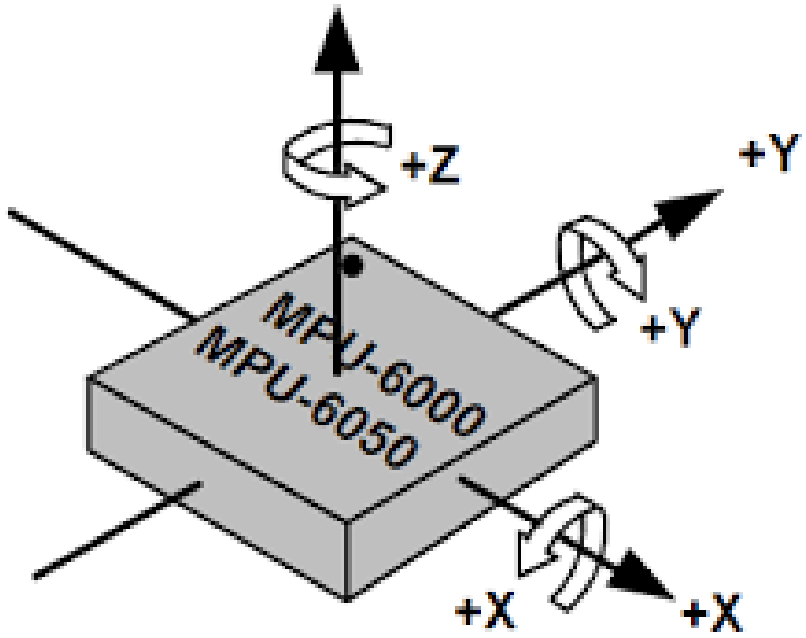
bluetooth hc-05



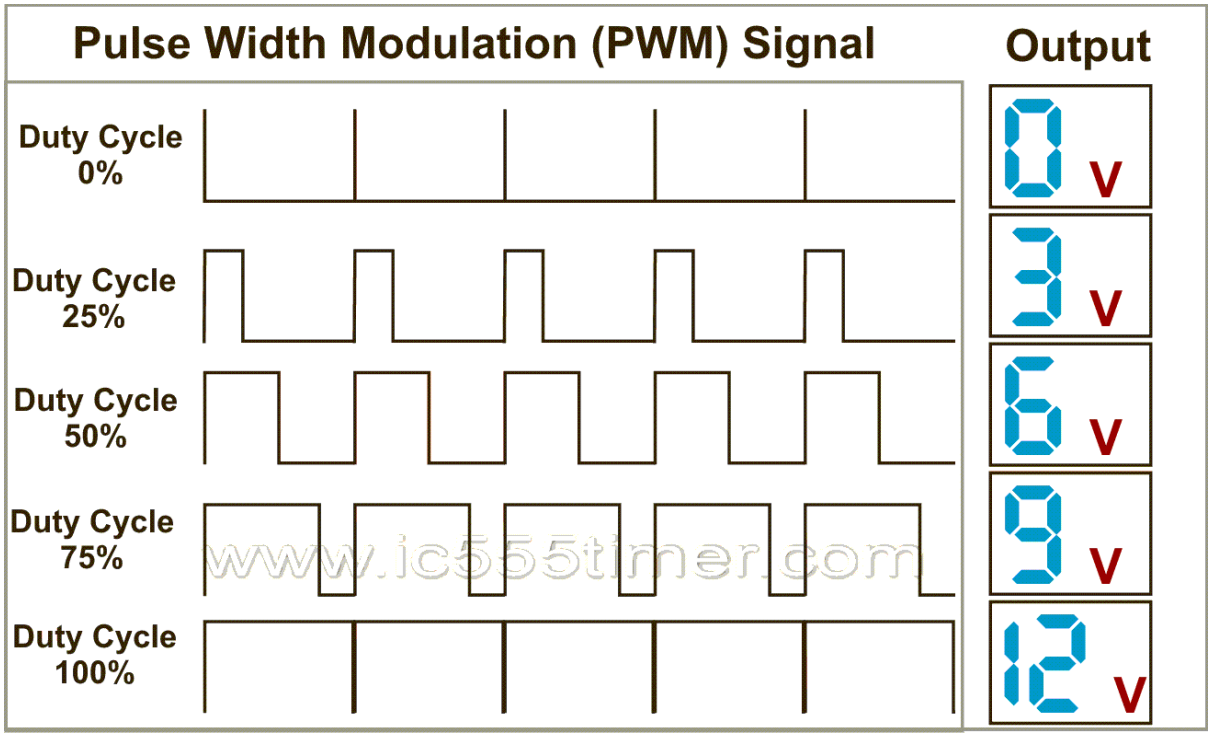
- **The HC-05 is a popular bluetooth module which can add two-way (full-duplex) wireless functionality to your projects.**
- **Vcc---Powers the module. Connect to +5V Supply voltage**
- **TX – Transmitter----Transmits Serial Data. Everything received via Bluetooth will be given out by this pin as serial data.**
- **RX – Receiver- -Receive Serial Data. Every serial data given to this pin will be broadcasted via Bluetooth**
- **Applications**
- 1. Wireless communication between two microcontrollers
- 2. Communicate with Laptop, Desktops and mobile phones
- 3. Data Logging application
- 4. Consumer applications
- 5. Wireless Robots
- 6. Home Automation

mpu6050



MPU6050 is a Micro Electro-mechanical system (MEMS), it consists of three-axis accelerometer and three-axis gyroscope. It helps us to measure velocity, orientation, acceleration, displacement and other motion like features

PWM

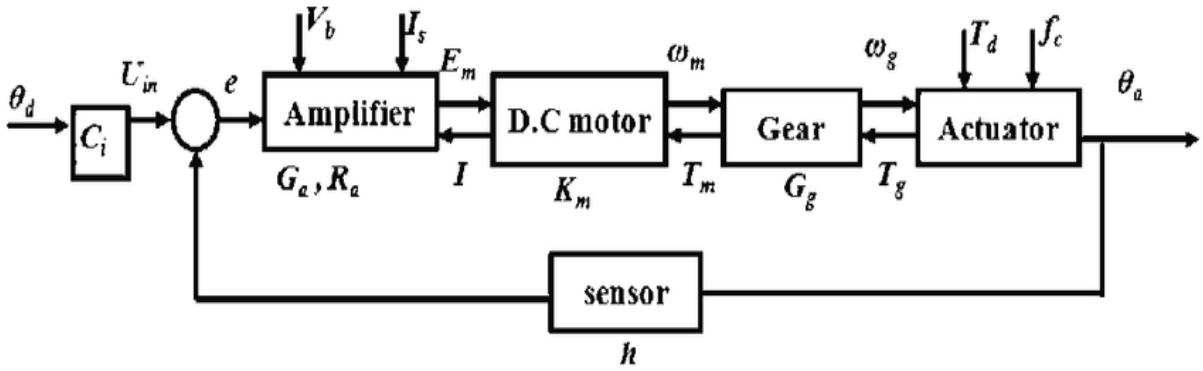


Pulse width modulation turns a digital signal into an analog signal by changing the timing of how long it stays on and off. The term “duty cycle” is used to describe the percentage or ratio of how long it stays on compared to when it turns off.

I used different voltage levels and put an offset for each signal to show the differences between duty cycles. As you can see, a higher duty cycle means that the signal stays on more than it turns off while the opposite is true for a low duty cycle.

*DON’T WRITE IT https://www.digikey.in/en/blog/pulse-width-modulation

Servo Motors



A servo motor is a rotary actuator that allows for precise control of angular position. It consists of a motor coupled to a sensor for position feedback. It also requires a servo drive to complete the system. The drive uses the feedback sensor to precisely control the rotary position of the motor.