

Table 1 and Table 2 shows the speed and duty cycle in forward and reverse direction of DC motor it can be observed that the speed of the DC motor was increasing with increase in the duty cycles and characteristic of the DC motor was found to be same in forward and reverse direction.

6. Conclusion

To run and control the motor in both forward and reverse with a processor, we need more circuitry. H-Bridge circuit is a popular circuit for driving DC motors. The great ability of an H-Bridge circuit is that the motor can be driven forward or backward at any speed, optionally using a completely independent power source. The H-Bridge design can be really simple for prototyping or really extravagant for added protection and isolation.

The present work is mainly focused on generating PWM of H-Bridge Bridge with different pulse input at the gates of MOSFET. We have checked and confirmed the results by giving pulse for resistive load and a DC motor. In this project the experiments conducted for universal motor. A comparison can be done between the present MOSFET module and other power semiconductor device modules to get best out of the two.

7. Future Work

A comparison can be done between the present MOSFET module and other power semiconductor device modules to get best out of the two. With the efficient use of the same microcontroller, the feedback can be taken out from motor to run it at constant speed or at desired speed.

A comparison can be done between the present MOSFET module and other power semiconductor device modules that could be IGBT based .Using IGBT switches with proper design of the circuit it is possible that it can be adapted to higher rating devices.And it is possible to implement the present circuit on shunt motors, this can be achieved by making appropriate changes in the circuit which can visualized as the further step in the improvement of the present circuit.

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