

HM2007 IC INTERFACED WITH AT89S52 TO AID THE QUADRUPLE AMPUTEES

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ABSTRACT

The article “**HM-2007 IC Interfaced with AT89S52 to Aid the Quadruple Amputee**” is mainly to help people who lost their hands and legs in an accident and to those who were devoid of hands and legs by birth. The main concept is to control the wheel chair movement by giving voice instructions or commands, rather than by the physical actions, which is much more useful for the quadruple amputees and also for those who were devoid of hands and legs by birth. The microcontroller used is (ATMEL-AT89S52). Others components are microphone, **voice recognizing IC (HM2007)**, signal conditioning unit, driver circuits, Relays along with motor and wheel chair model. The desired data's are stored in the voice process IC's RAM memory. In microcontroller we have already programmed so it receives the pulse signal from signal conditioning unit and activates the relay driver circuits. Driver circuits consists of transistor, it just acts as switch to turn ON and turn OFF the relays. Relay outputs are directly connected to motors which are attached to the wheel chair. Thus by using this setup the wheel-chair movement can be controlled by the quadruple amputees and also for those who were devoid of hands and legs by birth.

KEYWORDS: Microcontroller (ATMEL-AT89S52), Voice Process IC (HM2007), Driver Circuits, Relay, Microphone