

Circuit description

The circuit mainly consists of five major components, including ARM core Board, Host Board, LCD drive Board, Monitoring Camera Board and Alcohol Detection Board. Please see the follow descriptions:

1. ARM core Board

The Board is the core part, consists of a SAMSUNG ARM processor (S3C2440A) , two pieces of RAM (IS42S16320B) , a piece of NOR FLASH (K9F2G08UOA) , a piece of NAND FLASH(S29GL512P11TFI010) and a piece of video capture chip (SAA7113) .

2. Host Board

The Board mainly helps to realize each hardware's function, including Hardware watchdog function(Achieved by the chip MAX706), Key driving function (Achieved by the chip P89LPC922FDH) ,Audio feature function(Achieved by the chip HWD2190MM, SSM2301RMZ, NLAS4501DTT1G and UDA1341TS), Echo cancellation function(Achieved by the chip MCP2510T-I/SO), CAN port function(Achieved by the chip MCP2510T-I/SO and PCA82C251T), GPS function(Achieved by the module REB-3571), UART transferable function(Achieved by the chip ICL3232IBZ), GSM function(Achieved by the module SIM340), Echo cancellation function(Achieved by the chip FM2010), SD card and motor driving function.

3. Monitoring Camera Board

The Board, mainly consists of a USB CMOS camera, realizes the monitoring function.

4. LCD drive Board

The Board, mainly consists of a Backlight Driving Chip and a 4.3-inch LCD screen, realizes the 4.3-inch LCD drive function.

5. Alcohol Detection Board

The Board, mainly consists of an Alcohol sensor, realizes the Alcohol Detection function.