

Students' Monitor and Anti-Kidnapping Device

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One of the major challenges confronting parents and the secondary school educational system nowadays is the tendency for students to go to places outside of their schedule due to adolescent behaviours and peer pressure and also the unexpected event of kidnapping. The project seeks to address the twin-headed problems through a combination of GPS mapping and telecommunication. The device is powered by a lithium 750mA cell and attached to the collar of their shirt or breast pocket of schools that wear blazers. A GPS mapping of the expected route of 40 individual students as a school sample was carried out using XPY 1525 satellite clock. 10 coordinates were taken along the expected path of each student between their homes and school and the coordinates synchronized using MPLAB which was fed into the ROM unit of the GPS module. Additional variance of $\pm 10\%$ was added for possible maximum deviation from the path after which the system is activated. Proteus 8 was used for the simulation and activation of the system. On closing from school and walking home, the path coordinates were collected by the receiver and compared with the 10 preset recorded data. Any variation above the preset values and maximum deviation allowed will trigger the alarm in the system and the embedded GSM module at the base unit sent a text to the school, parent or guardian indicating that the child has gone beyond the expected path and at the same time send the exact location of the child. The system effectively informs the school and parents on time if a child is out of expected route or possibly kidnapped.