PROJECT NAME: GESTURE CONTROLLED BOT

SHORT DESCRIPTION:

The aim of the project is to make a gesture-controlled bot. The bot will be controlled by particular movements of the hand, and these will be detected by an accelerometer and sent to the bot using RF signals and the bot will move accordingly. It can grip and carry objects of suitable width it with it and drop it when asked to do so and it can also take snapshots when the ending point is reached.

DESCRIPTION:

Hand- gesture recognition has various applications like computer games, machinery control (e.g. Crane), and thorough mouse replacement. Exploring the use of it to control a bot is our main intention in doing this project.

There will be a glove worn on the hand containing components of accelerometer, microcontroller, and a wireless transmitter module. The accelerometer will detect the accelerations along its axes and this will be transmitted to the transmitter through a microcontroller. The other wireless module, on the bot, that is, the transceiver will receive these signals and send it to the microcontroller, which will be coded to the bot as desired. Preferably the bot and the glove will have covered components for long lasting. There will be an on-board battery on the bot.

The hand gestures could also instruct the bot to grip objects and take it off with it. The gripping mechanism is controlled by a servo motor. The lifting mechanism is controlled by two high torque servo motors. The camera takes the snaps at the end.

TEAM NAME : FANTASTIC FOUR