

- Means for creating on said display, a representation of at least one object, and;
- Means for modifying, manipulating, or positioning said at least one object representation on said screen as a function of the position or orientation of datums or person
2. Apparatus according to claim 1 further including light source means for directing light at said member
 3. Apparatus according to claim 1 wherein at least one of said datums is retroreflective
 4. Apparatus according to claim 1 wherein at least one of said datums is a natural feature of said member
 5. Apparatus according to claim 2 wherein said light source is an LED light source
 6. Apparatus according to claim 2 wherein light from said light source is substantially invisible
 7. Apparatus according to claim 1 wherein at least one of said datums is distinctive in color
 8. Apparatus according to claim 1 wherein at least one of said datums is a distinctive shape
 9. Apparatus according to claim 1 wherein at least two cameras are used
 10. Apparatus according to claim 9 wherein said cameras provide stereo pair of images of said object
 11. Apparatus according to claim 9 wherein said cameras look at different sides of said person
 12. Apparatus according to claim 9 wherein said cameras look at different times at said person
 13. Apparatus according to claim 1 wherein said cameras are provided with the display
 14. Apparatus according to claim 1 including further means of affixing a datum
 15. Apparatus according to claim 1 including further voice input means to said computer
 16. Apparatus according to claim 1 including further means to allow said camera to see objects associated with said person
 17. Apparatus according to claim 1 including bandpass filter means associated with at least one of said cameras
 18. A method by which a person may input data to a computer, the method comprising:
 - providing a target on said person
 - providing a source of light to create an illumination field;
 - providing at least one TV camera proximate said light source such that the camera can detect reflection of light from said object in said illumination field
 - detecting radiation reflected from said within the illumination field to create at least one tv image containing an image of said person
 - determining from said tv image information concerning the position and/or orientation of said target, and
 - providing a desired input to said computer using said determined information
 19. A method according to claim 20 wherein said member contains at least one retroreflective datum
 20. A method according to claim 20 wherein said light source is an LED light source
 21. A method according to claim 20 wherein said Light source is substantially invisible
 22. A Method for input of information by a person to a computer having a display representing at least one object comprising the steps of
 - Providing a datum associated with said person
 - Electro-optically determining, the position of at least one datum on said person in 3 dimensions
 - Providing a representation of at least one computer generated virtual object on said display, and
 - Using said determined position or orientation data, manipulating said object displayed by said computer to provide a desired visual display or audio response
 23. A method according to claim 24 wherein at least one of said datums is retroreflective
 24. A method according to claim 24 wherein said datum is distinctive in color
 25. A method according to claim 24 wherein said datum is a distinctive shape
 26. A method according to claim 24 wherein at least two cameras are used
 27. A method according to claim 24 wherein said cameras provide stereo pair of images of said datum
 28. A method according to claim 24 wherein said cameras look at different sides of said datum
 29. A method according to claim 24 wherein said cameras are provided with said display
 30. A method according to claim 24 including further step of affixing a datum
 31. A method according to claim 24 wherein at least one of said datums is a natural object feature
 32. A method according to claim 24 including the further step of recognizing voice input
 33. A method according to claim 24 including temporary filter means for at least one lens of said cameras
 34. A method according to claim 24 including the further step of sensing the gray level image of a portion of said user.
 35. A method according to claim 24 including the further step of changing Sound output as a function of said data
 36. A method according to claim 24 including the further step of using said display or audio for learning
 37. A method according to claim 24 including the further step of analyzing movement of said datum
 38. A method according to claim 24 including the further step of determining the position or orientation of a member
 39. Means for aiding the determination of locations of points on a human, comprising
 - means providing decoration for said human, said means easily visible by a TV camera or other electro-optical device, and
 - Means for temporarily providing said decoration means on said human
 40. Apparatus according to claim 39, wherein said decoration means is retroreflective
 41. Apparatus according to claim 39, wherein said decoration is selected from a group comprising rings, bracelets, watches, lipstick, nail polish,
 42. Apparatus according to claim 39, wherein said decoration is part of clothing