

# A BRIEF HISTORY OF WEARABLE COMPUTING.

**Foundations (F):** Thinkers, innovations, and experiments that helped pave the way for wearable computers.

**Complete Systems (C):** Complete wearable computers (general or special purpose)

- 1268 (F):** Earliest recorded mention of eyeglasses
- 1665 (F):** Robert Hooke calls for augmented senses
- 1762 (F):** John Harrison invents the pocket watch
- 1907 (F):** Aviator Alberto Santos-Dumont commissions the creation of the first wristwatch
- 1945 (F):** Vannevar Bush proposes the idea of a "Memex" in his article "As We May Think" [MIT]
- 1960 (F):** Heilig patents a head-mounted stereophonic television display
- 1960 (F):** Manfred Clynes coins the word "Cyborg"
- 1966 (C):** Ed Thorp and Claude Shannon reveal their invention of the first wearable computer, used to predict roulette wheels [MIT]
- 1966 (F):** Sutherland creates first computer-based head-mounted display [MIT]
- 1967 (F):** Bell Helicopter experiments with HMDs with input from servo-controlled cameras [Bell Helicopter]
- 1967 (C):** Hubert Upton invents analogue wearable computer with eyeglass-mounted display to aid lipreading [Bell Helicopter]
- 1968 (F):** Douglas Engelbart demonstrates chording keyboard in NLS (oN Line System) [SRI]
- 1972 (C):** Alan Lewis invents a digital camera-case computer to predict roulette wheels [Cal Tech]
- 1977 (C):** CC Collins develops wearable camera-to-tactile vest for the blind [Smith-Kettlewell]
- 1977 (C):** HP releases the HP 01 algebraic calculator watch [Hewlett-Packard]
- 1978 (C):** Eudaemonic Enterprises invents a digital wearable computer in a shoe to predict roulette wheels [Eudaemonic Enterprises]
- 1979 (F):** Sony introduces the Walkman [Sony]
- 1980 (F):** Upton and Goodman file for patent on LED raster display [Textron, Inc]
- 1981 (C):** Steve Mann designs backpack-mounted computer to control photographic equipment
- 1983 (C):** Taft commercializes toe-operated computers based on Z-80's for counting cards
- 1984 (F):** William Gibson writes Neuromancer
- 1986 (C):** Steve Roberts builds Winnebiko II, a recumbent bicycle with on-board computer and chording keyboard
- 1987 (F):** The movie Terminator is released
- 1989 (F):** Private Eye head-mounted display sold by Reflection Technology [Reflection Tech]
- 1990 (C):** Gerald Maguire and John Ioannidis demonstrate the Student Electronic Notebook, with Private Eye and mobile IP [Columbia]
- 1990 (F):** Olivetti develops an active badge system, using infrared signals to communicate a person's location [Olivetti]
- 1991 (C):** Doug Platt debuts his 286-based "Hip-PC" [Select Tech]
- 1991 (C):** CMU team develops VuMan 1 for viewing and browsing blueprint data [CMU]
- 1991 (F):** Mark Weiser proposes idea of Ubiquitous Computing in Scientific American [Xerox PARC]
- 1993 (C):** Thad Starner starts constantly wearing his computer, based on Doug Platt's design [MIT]
- 1993 (C):** BBN finishes the Pathfinder system, a wearable computer with GPS and radiation detection system [BBN]
- 1993 (F):** Thad Starner writes first version of the Remembrance Agent augmented memory software [MIT]
- 1993 (F):** Feiner, MacIntyre, and Seligmann develop the KARMA augmented reality system [Columbia]
- 1994 (C):** Lamming and Flynn develop "Forget-Me-Not" system, a continuous personal recording system [Xerox EuroPARC]
- 1994 (C):** Edgar Matias debuts a "wrist computer" with half-QWERTY keyboard
- 1994 (F):** DARPA starts Smart Modules Program
- 1994 (F):** Steve Mann starts transmitting images from a head-mounted camera to the Web [MIT]
- 1996 (F):** DARPA sponsors "Wearables in 2005" workshop
- 1996 (F):** Boeing hosts wearables conference in Seattle
- 1997 (F):** Creapôle Ecole de Création and Alex Pentland produce Smart Clothes Fashion Show
- 1997 (F):** CMU, MIT, and Georgia Tech co-host the first IEEE International Symposium on Wearables Computers