TEAM: BREANNA FAYE; GUILLERMO BERNAL; WANLI CHENG; XU WANG

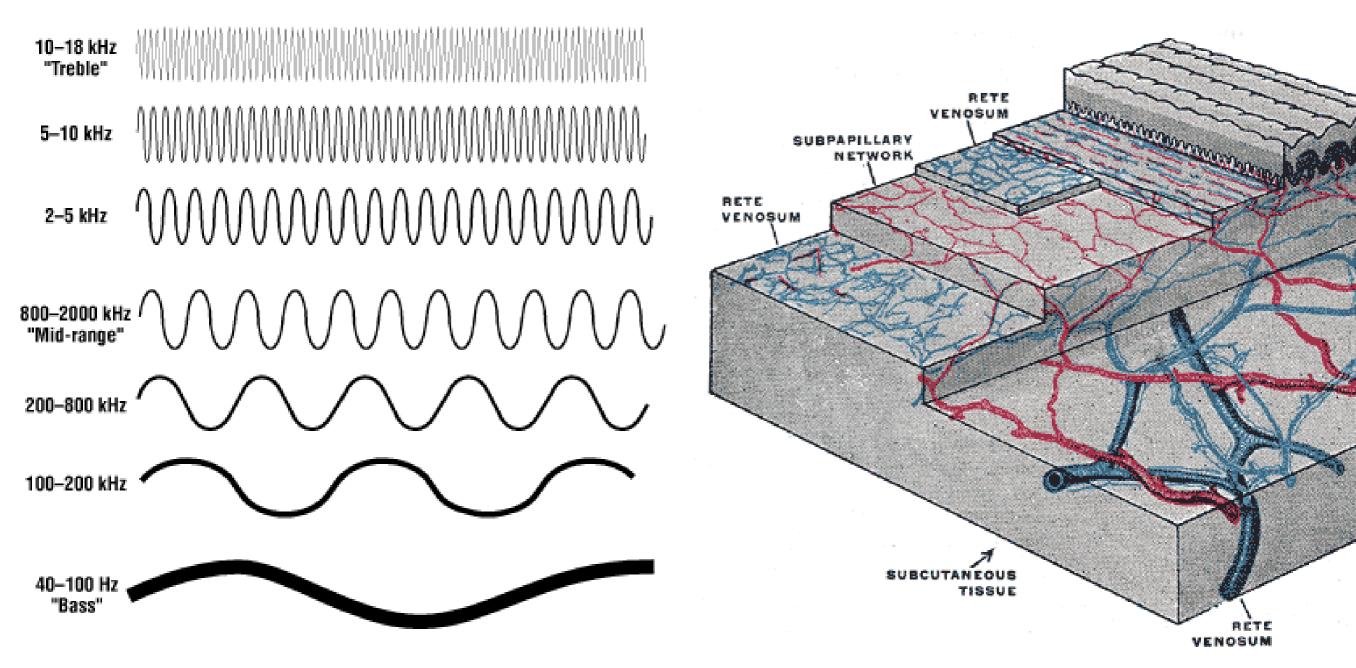
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THE PROBLEM

PAPER MAPS ARE TOO CLUMSY AND HARD TO USE. IN MANY CASES THEY CAN BE HARD TO READ

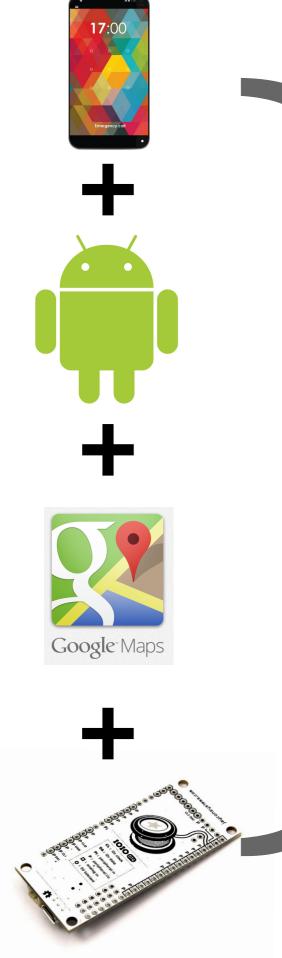
GPS SYSTEMS ARE NOT REALLY DESIGN FOR CYCLISTS. THEY REQUIRE VISUAL ENGAGEMENT FOR THE USER TO RECORD DIRECTIONS.

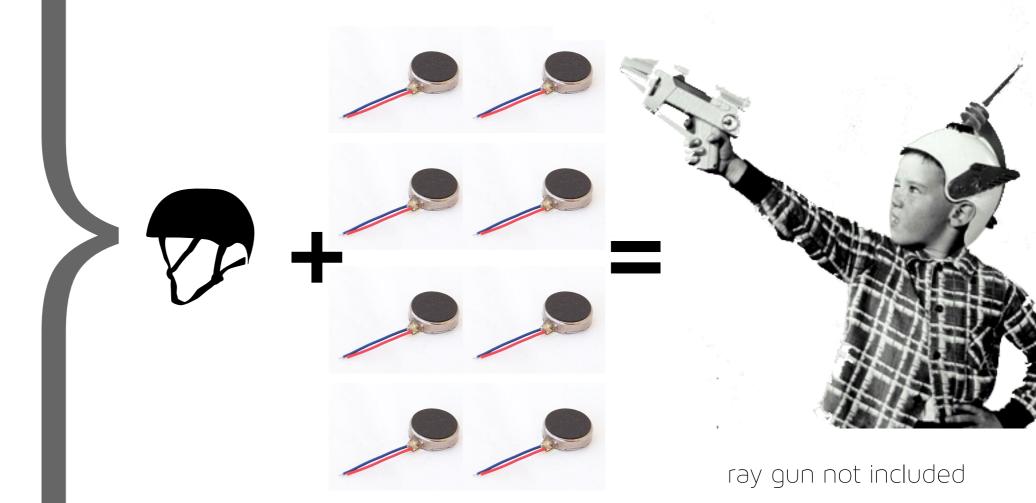
WHAT IF YOU COULD STILL GET YOUR DIRECTIONS IN YOUR SMARTPHONE, WHILE KEEPING FULL ATTENTION ON THE ROAD. Our Skin is an amazing receptor, why not use it to collect information?



In glabrous (hairless) skin, there are four principal types of mechanoreceptors, each shaped according to its function. The tactile corpuscles respond to light touch, and adapt rapidly to changes in texture (vibrations around 50 Hz). The bulbous corpuscles detect tension deep in the skin and fascia. The Merkel nerve endings detect sustained pressure. The lamellar corpuscles in the skin and fascia detect rapid vibrations (of about 200–300 Hz).

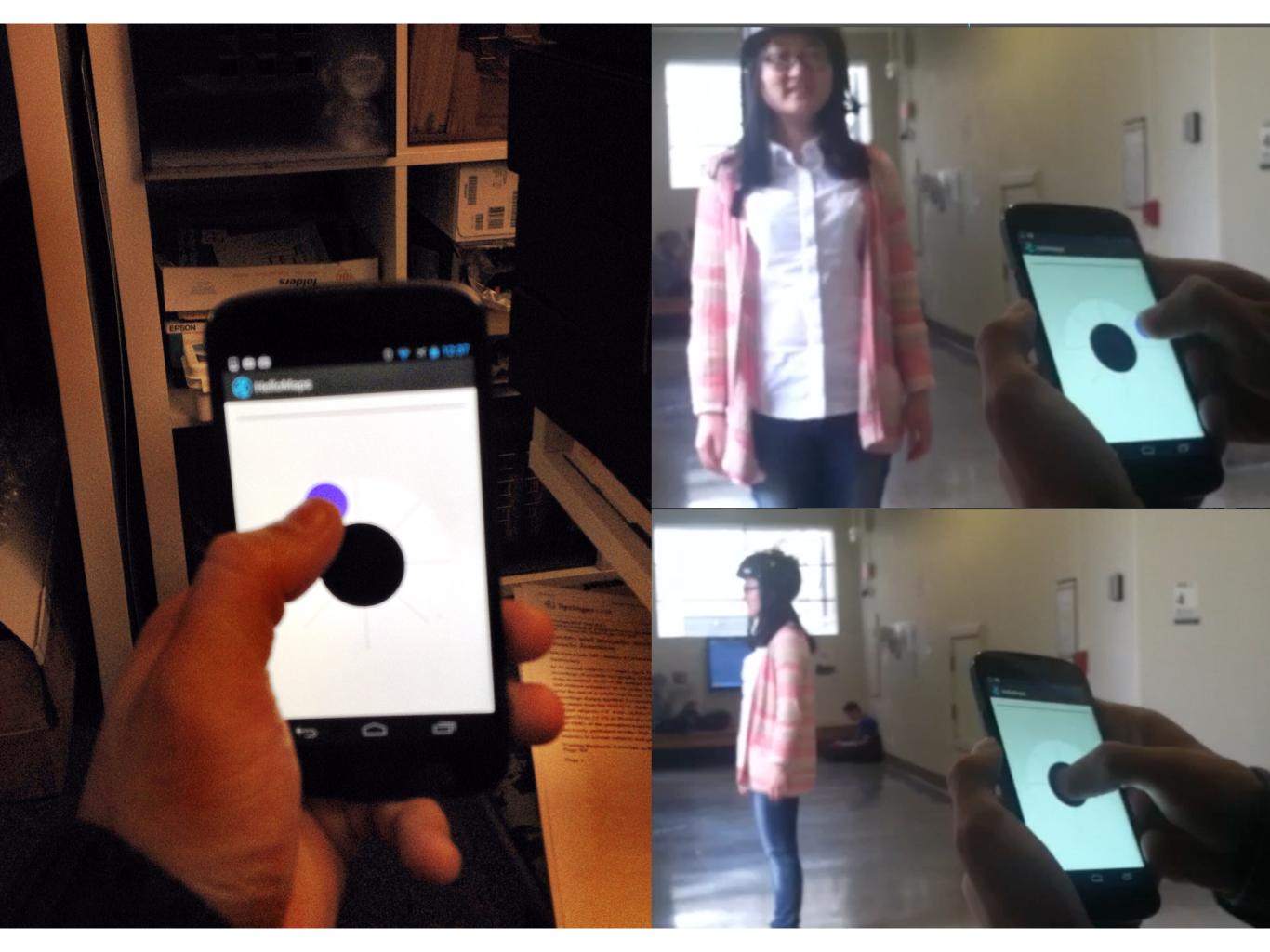
Michelson, JD; Hutchins, C (1995). "Mechanoreceptors in human ankle ligaments". The Journal of bone and joint surgery. British volume 77 (2): 219–24. PMID 7706334.







EACH ROUTE CAN ALSO BE LOGGED INTO THE HELMET, AND TRANSFERRED BACK TO YOUR SMARTPHONE AND SAVED AS A REGULAR DESTINATION. THESE DESTINATIONS COULD ALSO BE SHARED WITH OTHER CYCLISTS, THAT WAY EVERYONE KNOWS HOW TO GET TO THE SAME DESTINATION FROM DIFFERENT LOCATIONS, CREATING A COMMUNITY AND SOCIAL PLATFORM BETWEEN CYCLISTS TO ENHANCE SAFETY AND COMMUNICATION.



Working prototype

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