智慧運動科技

Intelligent Sports Technology

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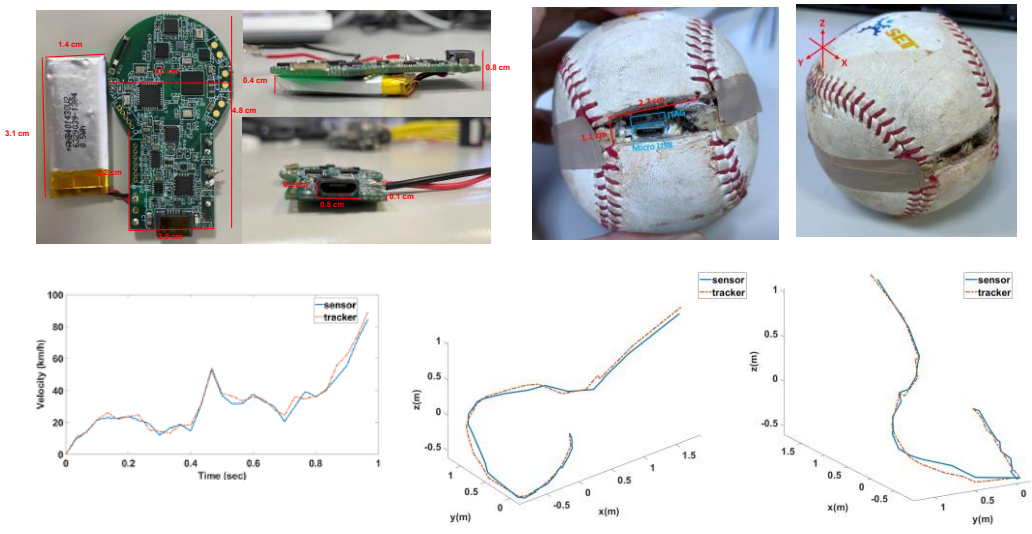
According to Plunkett Research, the global sports industry revenues is about US$1.4T in 2020, while the semiconductor revenue is US$4.6B (about 1/3 of the sports-related industry). Therefore, the sports industry, especially sports technology industry, is a promising and innovative market for us to explore in Taiwan.

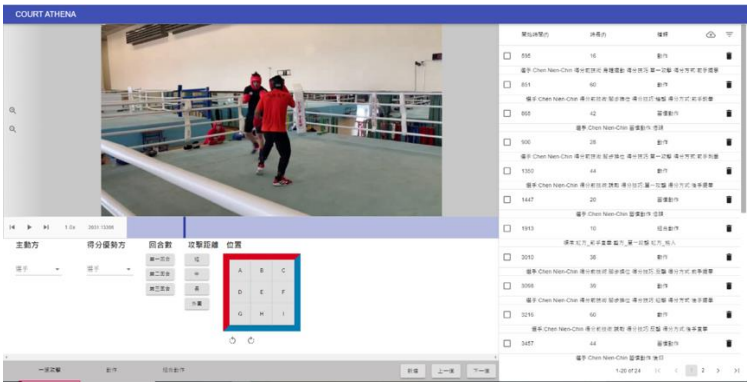
The main goal of the project is to form a multidisciplinary group to develop intelligent sports technology from different experts (sports science, AI, sensors) and from different colleges (Education, EECS, Engineering) in National Tsing Hua University.

In the two years, we have the following achievements:

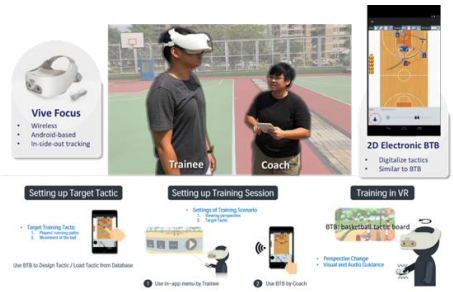
1. Formed a regular biweekly 2-hr group meeting focusing on sports technology development and possible project proposals (till now for two years)
2. Smart baseball and the measured velocity and 3D trajectory of arm swing when pitching



3. Smart venues for table tennis in NTHU gymnasium
4. A performance analysis and evaluation system for athletes based on videos (collaborated with NTHU table tennis and boxing teams)



5. Technical support to the athletes at Tokyo 2020 Summer Olympics
    a. Archery: VR training system
    b. Table tennis and Boxing: performance analysis
6. VR training system for athletes



During the project period, we have successfully obtained the funding of NT$42,974,898 from MOST and other industry (ITRI, Qualcomm, MOE, Biologue, etc.) grants (2020.1.1~2021.6.30).

We have also published 13 journal papers and 2 conference papers.