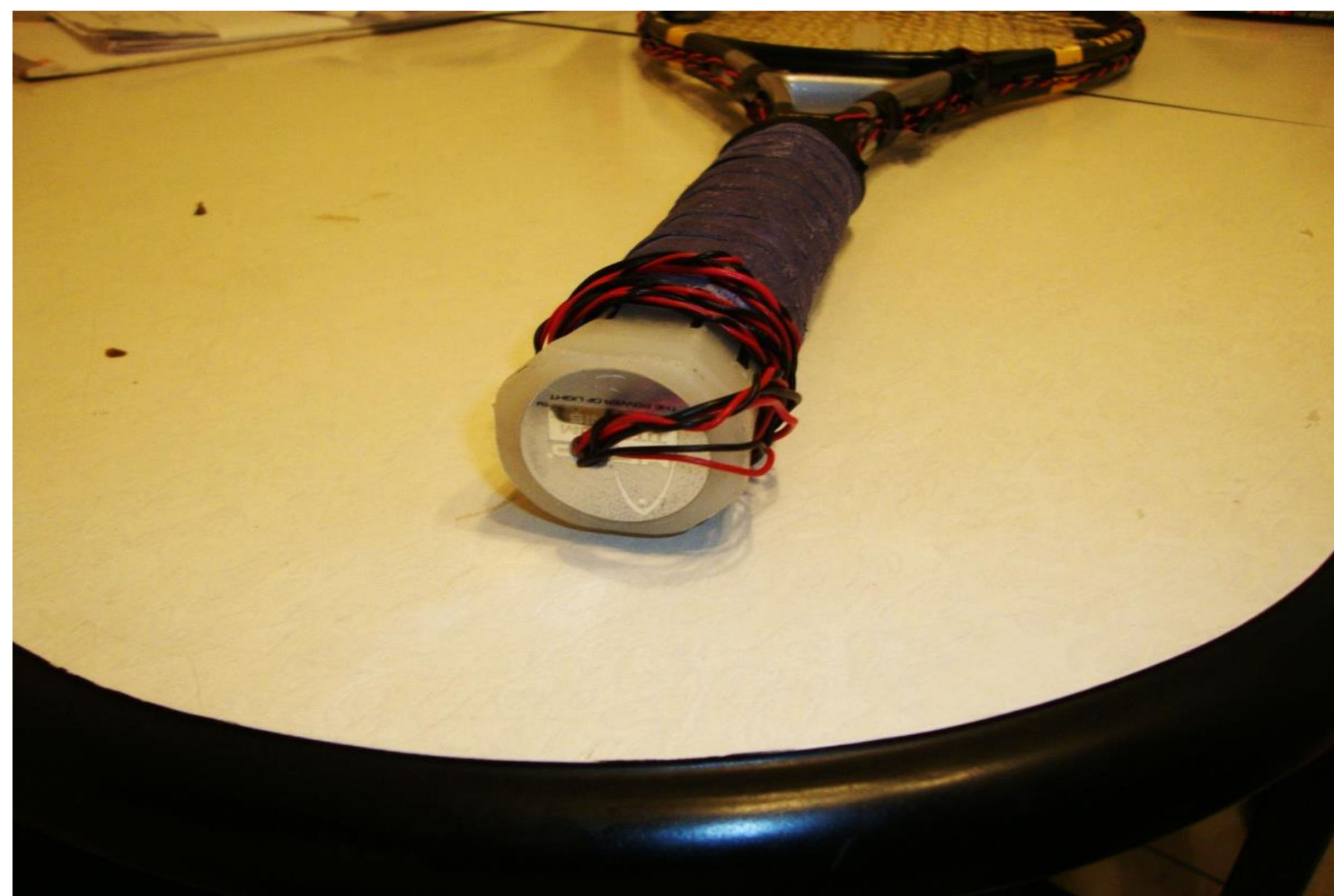
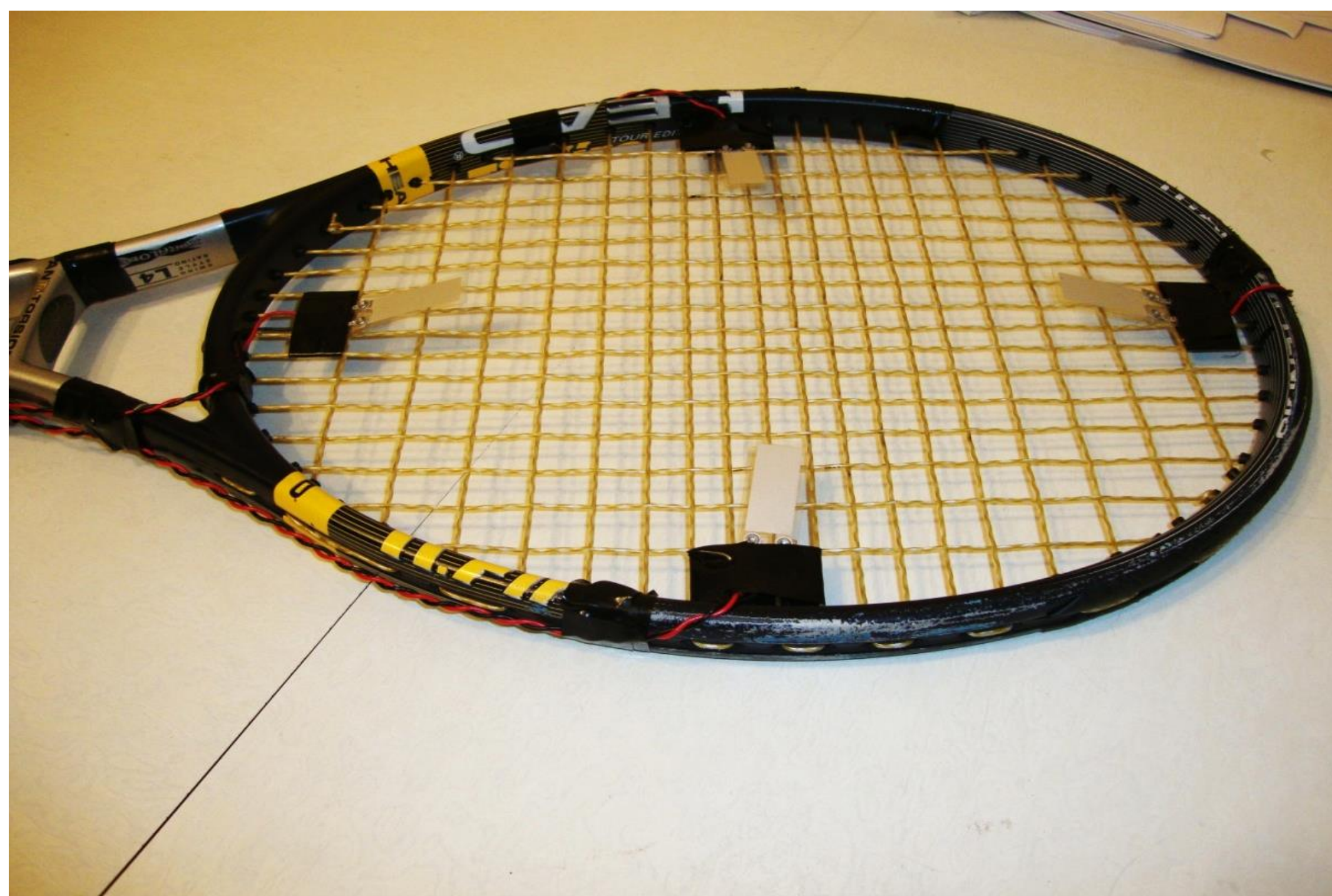
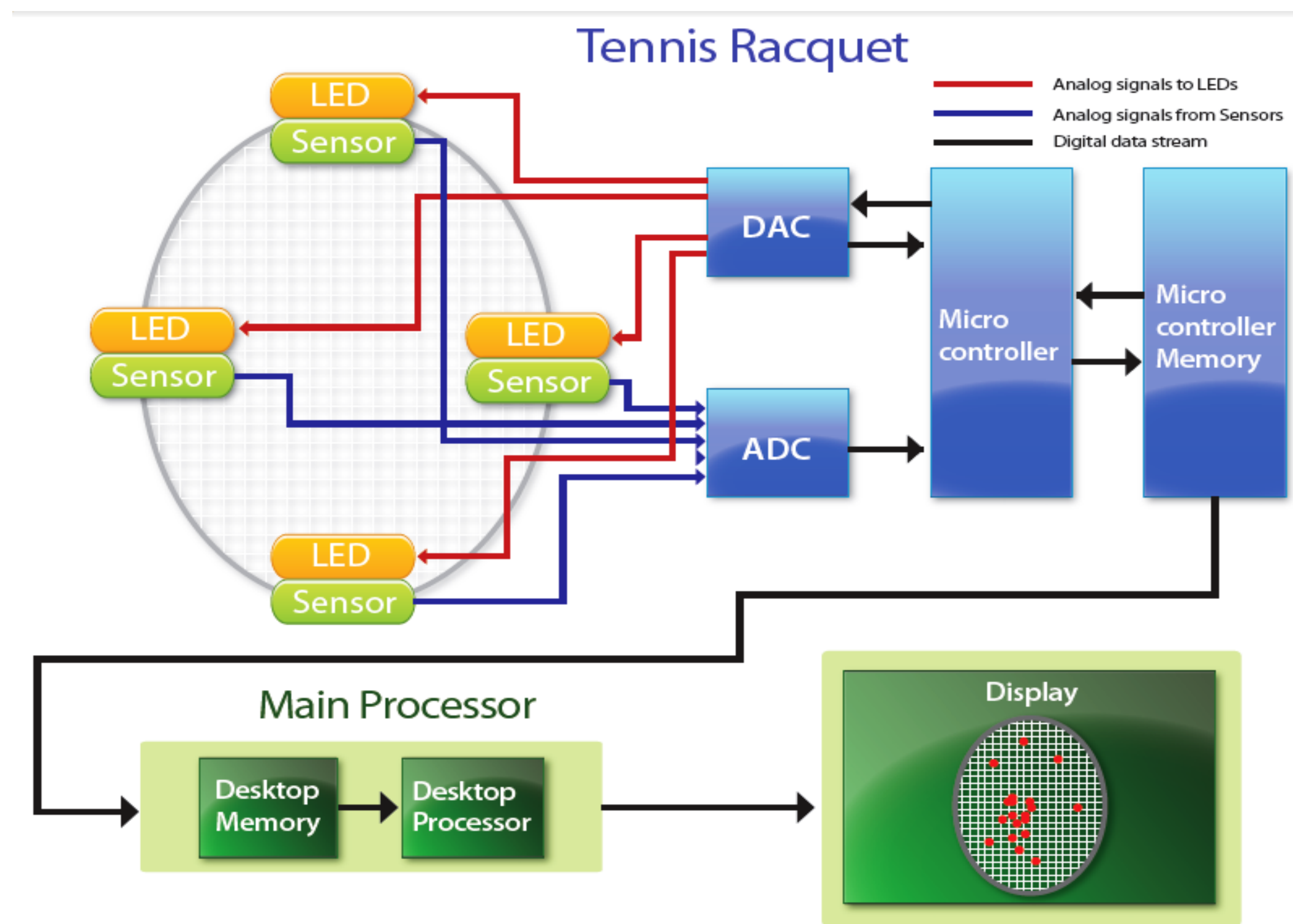
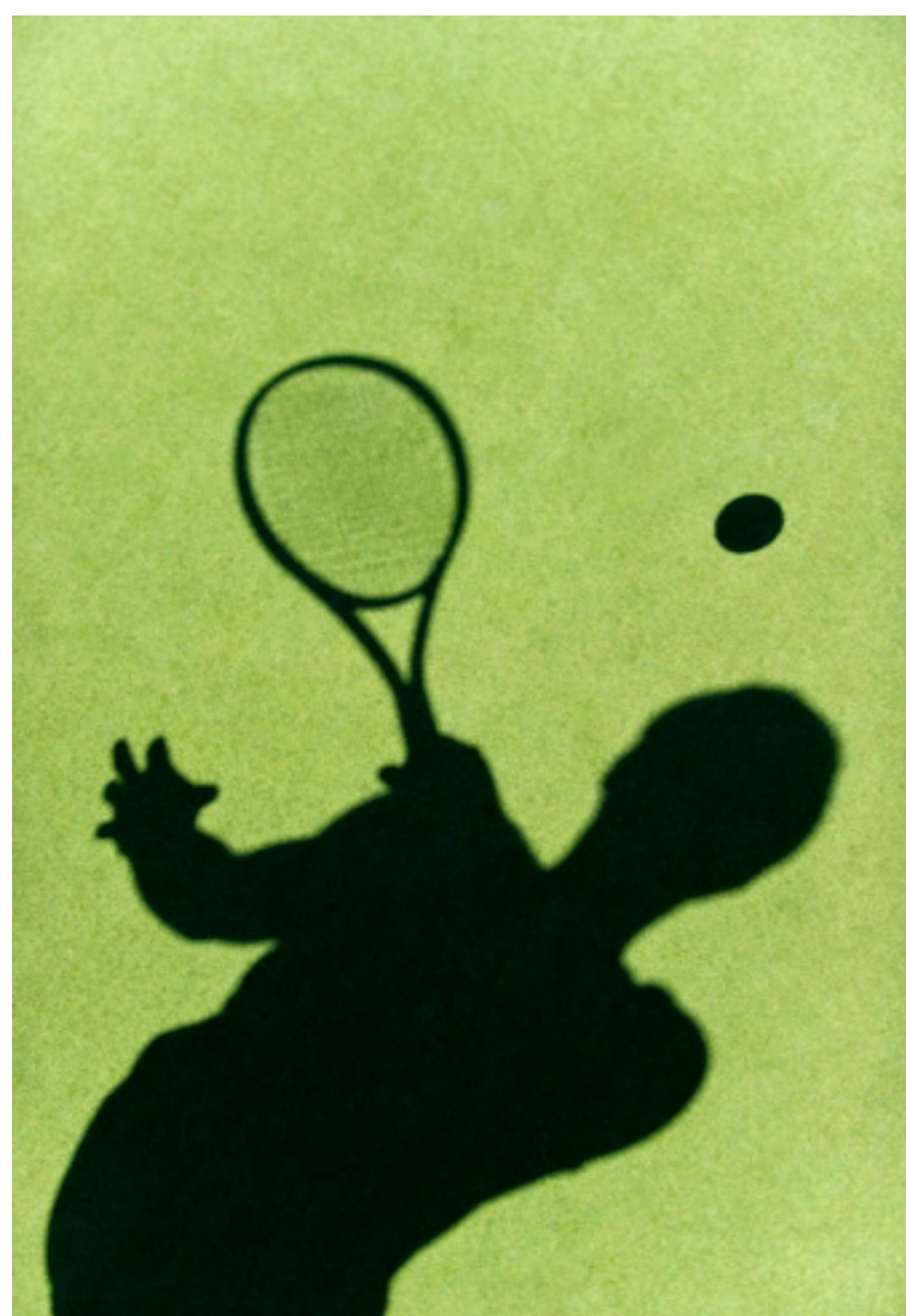


# SMART RACQUET

INVENTOR: SAMMY SUNGYEON KIM / UNIVERSITY OF WATERLOO

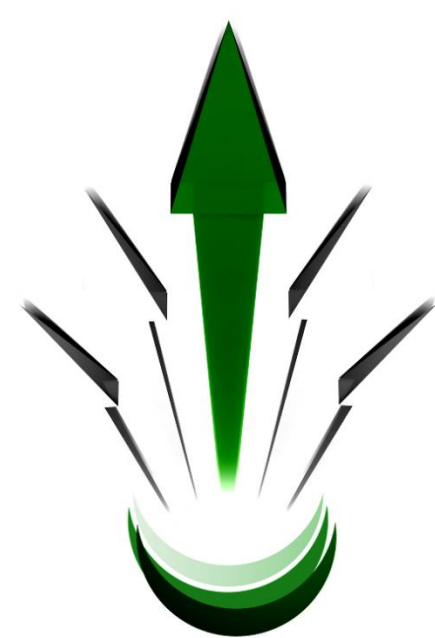
## DESCRIPTION SUMMARY

Athletes are constantly looking for ways to improve their performance. The proposed system will implement vibration sensors that detect the location of impact of the ball on the racquet head. The captured data will be compared to the data indicative of an "ideal stroke" and presented back to the user pictorially. Our racquet will provide visual feedback to the player to improve the user's swing. Smart Racquet captures ball impact locations on racquet head via vibration sensors. It stores impact location data in microcontroller over the time the racquet is in use. When the user is done using the racquet, the impact location data is retrieved from the microcontroller's memory, moved to a PC, and then processed by the desktop software. Desktop software outputs a diagram depicting how accurate the user was in making the tennis ball contact the racquet's "sweet spot" over time. Users can then modify their swing behavior accordingly to create the "ideal stroke" and thus improve their game.



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