Wearable Risk Indicator via Sugar Tracking (WRIST): A Novel, Wearable, Non-Invasive Glucose Monitoring System via Quantitative Spectroscopy Analysis

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Health related morbidity and mortality is on the rise in our country. Diabetes, Blood pressure are 2 serious conditions that can cause morbidity and mortality by causing heart disease, stroke, renal failure etc. One other area of medicine that's being explored by recent medical advancements is glucose monitoring, which recent studies have proven, is vital to our health and well being. Preventative care is better than curative care as it can prevent catastrophic medical events Our Hypothesis was that with current technology and information that's already available, we can create a system where the power to monitor our health and make decisions is in the hands of the end user, that is us. Maybe we can predict illnesses before they become full blown and cause lasting damage. Our goal was to develop an app and integrate wearable technology to achieve the above. The project intends to create this in our technology ecosystems and integrate the power of what's already available, to our benefit. This can be used by everyone and will also be appropriate in a demographic that is at high risk for these conditions. The novel approach here was to harness already available technologies that is not currently used to its fullest potential and create a breakthrough approach to monitoring one's own health via blood glucose tracking and focus on preventative care.

Awards Won: