Thesis Project Portfolio

SmartSprinter

(Technical Report)

End of Moore's Law and its Effect on Computing Development

(STS Research Paper)

An Undergraduate Thesis

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<div align="center">**Sociotechnical Synthesis**</div>

SmartSpinter

SmartSprinter used commercial over the counter (COTS) components to create a device that helped optimize users track starts. Through multiple sensors and a microcontroller, the device is able to obtain block pressure metrics and a height check to make sure that the runner is maximizing their horizontal force off the block. This data is then sent to a separate computer with a Python graphical user interface (GUI). The goal of this project is to be used as an advanced training tool to help sprinters win more races.

End of Moore's Law and its Effect on Computing Development

Gordon Moore made a prediction in 1965 that the density of transistors on a computer chip would double every one and a half to two years. For a long time, this prediction held true. Recently, this prediction is no longer starting to hold because of fundamental phyics making it impossible for a transistor to get any smaller. The research paper goes over this examination in more detail and the semiconductor industry methods to overcome this reverse salient within the field. It then gives a small synopsis on what could happen within to the field within the near future.