Microprocessor Research - 10/04/2022

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Proposed Microprocessors

Option 1: Jetson Nano Developer Kit

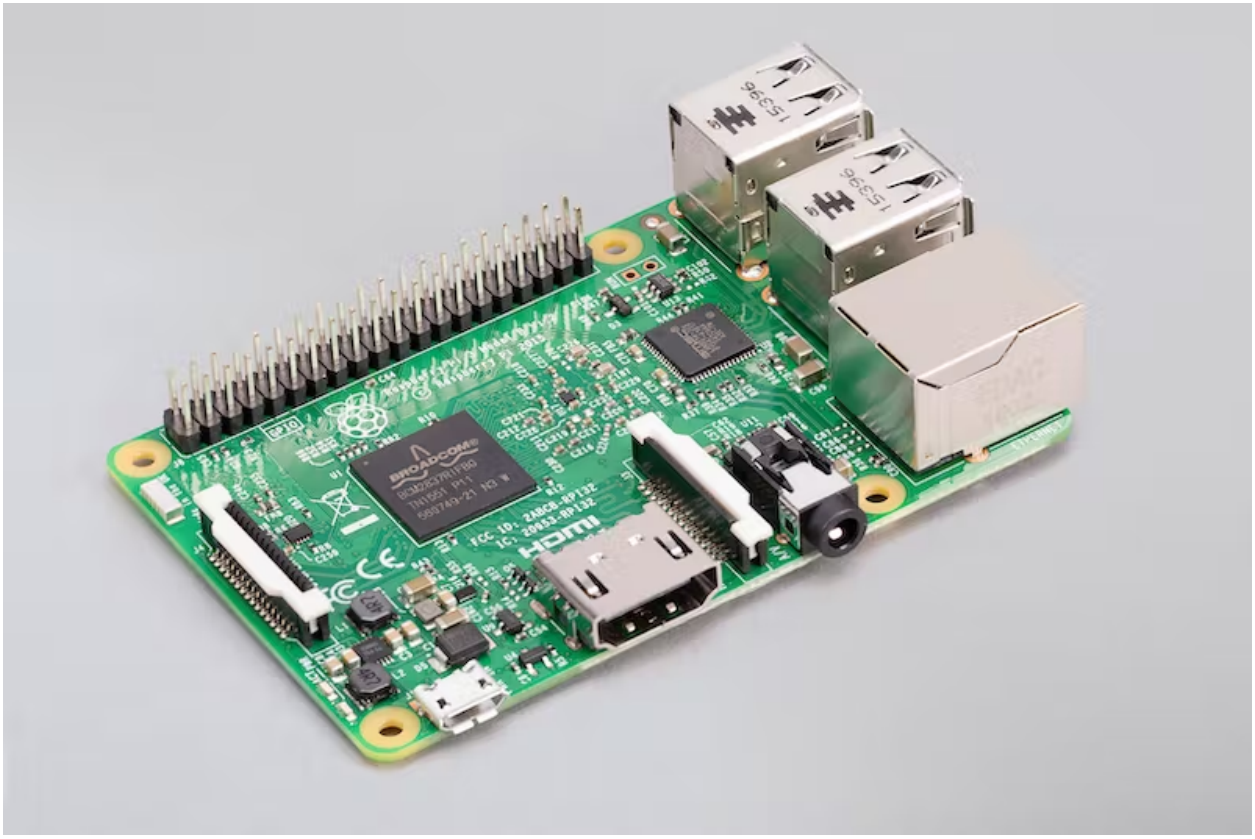
This one will definitely go above and beyond for what we need as a processor. In this video it shows all the capabilities of the processor, includes object detection which is our main priority. It is priced at just under 500$ and will need to be evaluated for other capabilities to justify spending that much for our project.

https://www.youtube.com/watch?v=fIESu365Sb0&t=2s

https://www.amazon.ca/NVIDIA-Jetson-Nano-Developer-945-13541-0000-000/dp/B08J157LHH

Option 2: Raspberry Pi 3 Model B

Raspberry Pi 3 Model B is a cheaper option at $46.95 and is capable of processor object detection using a neural network. Which has been performed by someone using YOLO a real-time object detection system, along with a Raspberry Pi Camera V2 which is $32.95. Possible limitations if there is need for other processes to run, but I don't think it would be realistic at this point to share hardware with other groups.



Option 3: Laptop (no cost)

We are still unsure how far we will get in our project exactly. However all the testing will be done with a laptop, so we can actually see what is going on with our object detection system. Depending on how long it takes us to get our system function at a 90-95% accuracy, we may not even need a processor if we never get past testing.