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# THE RAIDERS

## Project Proposal

### **PRODUCT TITLE:**

Knee-Pad Detection

### **PRODUCT DESCRIPTION:**

Our project aims to help detect walking imbalances by measuring and comparing the acceleration of the knee

### **PRIMARY APPLICATION PROPOSALS:**

The device that is attached to the knee pad is a Arduino Nano. The device will be utilized to detect the measuring and comparing acceleration of the knee. The Arduino Nano is a small and breadboard-friendly board. It works only a DC power jack and works with a MINI-B USB cable. The device will be powered up by a lithium battery which will be powerful enough to let it work throughout the whole day and charge it. All data will be stored into a SD card.

**REQUIREMENTS:**

- A Knee-Pad
- Arduino Nano
- Measuring the acceleration of the knee
- Sending Data to SD Card

**STRETCH OBJECTIVES:**

Detect walking imbalances by measuring and comparing the acceleration of the knee and sending the data to a SD Card.

The device will be attached to both of the knee-pad and will be assigned in the front position so the knee can read, calculate and measure the acceleration and movement.