Journal 0

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1 Introduction

Lacrosse, one of the fastest growing sports in America, suffers from a lack of effective stat tracking tools for such metrics as check-variety or wall-ball reps. Neural networks are an effective tool at discriminating between large quantities of data and dividing inputs into a set of classifications or outputs. In our project my partners and I intend to utilize an array of gyroscopic sensors placed inside a lacrosse shaft to collect motion data, which will be sent to a remote device via a bluetooth connection to be classified as a specific athletic movement by a neural network.

2 Obstacles

The primary obstacle my group will face in this project will be creating enough distinct data in order for the neural network to actually be able to classify a given movement correctly.

3 Early Success

The first mark of early success on this project would be if our neural network could accurately distinguish between two very different types of movements, such as an overhand shot and a poke-check. From there we would look to correctly identify movements that are more similar, such as an overhand pass and a slap-check.

4 Materials

We plan to utilize an array of two to three sensors aligned on the interior of a three foot metal lacrosse shaft and an Android cellphone with bluetooth capabilities.