

# Javascript: Badminton Man

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## Abstract

This is a project that will utilize Javascript to create a 3D model of a badminton player. This badminton player will then demonstrate a key badminton move: the clear.

## 1 Introduction/Background

I have been playing badminton since I was a little kid, and I formally trained for 3 years during my high school career. For my project, I would like to utilize a blobby man to demonstrate one of the basic moves in the game of badminton: the clear. This move is crucial in badminton, and mastering it can lead to great success in competition.

## 2 Methods

For this project, I will be creating the animated blobby man as has been done in previous years, but I will utilize Javascript rather than VPython (like Ramya did in 2013). I chose to do this in Javascript because I am concurrently learning this programming language in another CS class (CS 105).

I will have the player start out in the ready stance (right before the birdie is to be served) and then move into the clear and follow-through. This will include both the arm movements and footwork. I will also try to include a birdie to simulate an actual game. Based on how much time I have and how proficient I become in Javascript, since I am a novice, I may be able to include other moves such as smashing or serving (either doubles or singles style) as well as a second player.

For this project, I will try to create my own code, while learning from a past project (i.e. Ramya's Swimming in 3D). I will also go on the three.js library, which provides a great deal of information on creating 3D objects in Javascript. I will have to set variables for scene, camera, and renderer in order to actually be able to create the objects I will need for the body of my badminton man. I will have to set up a framework for the body as well. After I have created my badminton man, I will have to execute the code for movement. After this, I may set mouse controls so a user can interact with my badminton man (e.g. they could change the perspective they view the badminton man from). It would be amazing if I were able to simulate part of an actual game depending on my timeframe and how complex this endeavor would be.

### 3 Timeline

1. Create the body of my badminton man. (Due 10/14/16)
2. Add in motions of badminton man. (Due 11/11/16)
3. Create class presentation. (Due 11/18/16)
4. Complete website and revise necessary portions of project. (Due 11/25/16)

### 4 Goals

Once this project is complete I will have achieved these goals:

- Learn to use Javascript at a beginner level.
- Create a figure in Javascript.
- Animate a figure in Javascript.
- Familiarize myself with TeXShop.
- Integrate Javascript and HTML together.
- Create my own website.