artsy.io

- **The overall idea for your project**
  - A website where multiple users can connect to and draw stuff on canvases in real-time
- **The features you want to implement**
  - Drawing
    - Drawing will involve lines, squares, circles (can be expanded)
    - Can pick colors from a palette
  - Ownership of canvas
    - Require a user to signup/login
    - Have 1 canvas per account that has saved state
    - Can spawn/move/clear canvas
    - Can allow/disallow others to draw on canvas
  - 3D world
    - Simple 3D world where you can see players move around in real time and edit canvases in real time
    - Requires 1 camera per player
    - Requires 1 3D model (small robot?) per player
    - Requires player controls (move forward/back/up/down in floaty manner)
    - Perhaps a skybox for a nice background
- **The technologies you think you'll need**
  - Express/passport for simple website login/signup
  - Mongo for canvas state storage
  - Three.js for 3D graphics
- **A breakdown of features by milestone**
  - MS1: three.js basics
    - 3D world with camera controls
    - Spawning a canvas
    - Drawing lines on canvas
  - MS2: express, passport, and mongo
    - Login/signup and ownership logic
    - Explore multiple users connecting in the world
    - Save state of canvas
  - MS3: fine tuning
    - Model importing to show player in world
    - Add rest of drawing features
    - Add other drawing features