ROBOCAM
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Product Concept
A mobile system that integrates a Kinect sensor and a camera to track and record a person's movement, gestures, and voice commands. The uses of the Robocam include but are not limited to amateur filmmaking, recording classroom lectures, and business conference calls.

Background
Problem: Human resources are wasted to record videos when they can be used to perform other tasks. The need for a cameraman also prevents some brilliant people from sharing their ideas through video recordings.
Market: Amateur filmmakers who can't afford to invest in human resources to handle the camera, teachers who wish to record classroom lectures.
Competition: Autotrek 2.0 ($14,000, immobile), Withings Smart Baby Monitor (immobile, does not track user)
The J_TRN Advantage:
Cost-efficient, mobile, intuitive interactive, voice command

Approach
Software Division: Will utilize the Kinect's skeletal tracking technology to follow a user and simultaneously stream x,y,z coordinate data to the Arduino.
Hardware Division: Will work on the motor controlled by the Arduino and on the receiving end of the x,y,z coordinates. The software and hardware will be integrated together for the finished product.

Progress & Milestones
12/07/12 Control the motors with Arduino and detect the human skeleton with Kinect
01/15/13 Communication between Kinect and Arduino such that the motor responds to the human movement, so camera will rotate as the user moves.
01/31/13 Integrating perimeter sensors in the hardware base of the robot
02/15/13 Complete the first prototype, which will integrate the PC and Kinect, Arduino controlled motors, a camera, WLAN, and battery.
02/29/13 Test product and analyze possible defects and solve

Materials
- Microcontroller
- Personal computer
- Microsoft Kinect
- Rotating camera
- Motors
- Mobile base w/ wheels
- Housing for completed robot

KINECT for XBOX 360

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TEAM
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