```
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//Are You Ready To Fly?(Well we have our work cut out for us)
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//www.bseverns.com

//reseting the program on its own is still an issue, though it may be more of a hardware t
import org.openkinect.*;
import org.openkinect.processing.*;
import processing.serial.*;
import oscP5.*;
import netP5.*;

//taking away everything that's not moving
boolean resetBackground =true;

//setting the video image's dimensions with hard variables
int kw  = 640;
int kh = 480;

//------------------------------KINECT STUFF
// Showing how we can farm all the kinect stuff out to a separate class
KinectTracker tracker;
// Kinect Library object
Kinect kinect;
PImage depthImg;
int minDepth =  800;//end of zone 1
int maxDepth = 960;//start of zone 3
int minimumPresence = 100;//number of change needed for anything to happen
int currentPos = -1;//place the viewer starts at
//accumulated totals of amount of movements in zones
int presenceFront = 0;
int presenceMiddle = 0;
int presenceBack = 0;

//zones
final int NOTHING = 0;
final int ENTER   = 1;
final int RECORDING = 2;
final int SOUND_PLAYBACK  = 3;
//sevond variable for checking the viewer/the program's logic
int whereIsViewer = NOTHING;

//presence needed and amount the program looks for things to move
float a;
float thresh;
//frame differencing stuff within the kinect image
int numPixels;
int[] averagePixels;
int[] bgSubAndThreshPixels;

//things that I should be working more with as I debug
boolean firstTime =true;
```

```processing
boolean showBackgroundSubtraction =false;
boolean showThresholded =false;

//---------------------------OSCP5 VARIABLES
OscP5 oscP5;
NetAddress myRemoteLocation;
int processingListeningPort = 12000;//ports can be anything for this
int maxMSPListeningPort = 7400;
String maxMSPipAddress ="127.0.0.1";//my computer

//--------------------------status of the file
boolean isPlaying =false;
boolean isRecording =false;

//-------------------------The serial port
Serial port;


void setup() {
  size(kw, kh);

  //KINECT
  numPixels = kw * kh;//total pixels in the image
   averagePixels =new int[numPixels];
   bgSubAndThreshPixels =new int[numPixels];
  // Make the pixels[] array available for direct manipulation
   kinect =new Kinect(this);
  kinect.start();
  kinect.enableRGB(true);
  kinect.enableDepth(true);
  // We could skip processing the grayscale image for efficiency
  // but I'm using the depthImage for reference, I believe
  kinect.processDepthImage(true);
   tracker =new KinectTracker();
  loadPixels();

  //  /* start oscP5, listening for incoming messages at port 12000 */
   oscP5 =new OscP5(this, processingListeningPort);
  /* set it to send to the maxmsp on port 7400 */
   myRemoteLocation =new NetAddress(maxMSPipAddress, maxMSPListeningPort);

  // serial/arduino things
  String arduinoPort = Serial.list()[0];
   port =new Serial(this, arduinoPort, 9600);// connect to Arduino

  frameRate(20);
}

void draw() {
  background(255);
  a = 0.35;
  thresh = 150;
```

```
  // Run the tracking analysis
  tracker.track();
  // Show the image
  arraycopy(bgSubAndThreshPixels, pixels);
  updatePixels();
}

void keyPressed()  {//manual reset function
  if (key  ==' ')
     resetBackground =true;
}

void stop() {
  port.stop();// stop talking to your little buddy, arduino
  kinect.quit();//no more kinect
  tracker.quit();//no more tracking
  super.stop();//stop everything!
}
```