

257 / 757

Programming in the Arts with Processing

In Class Exercise #8**Day:****Thur 2.6.14****Due:****In Class****Goal:****More Control****Course Web Site:**<http://www.andrew.cmu.edu/course/60-257/>**Reading:**

Posted on the calendar web page available from the link shown above.

Assignment:

The code below is in the zip file you just downloaded. Use it as your starting code.

Here are the details:

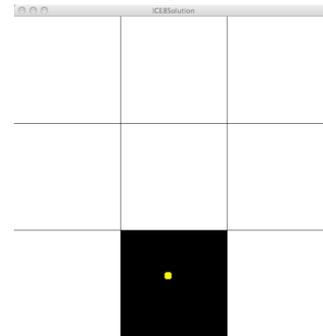
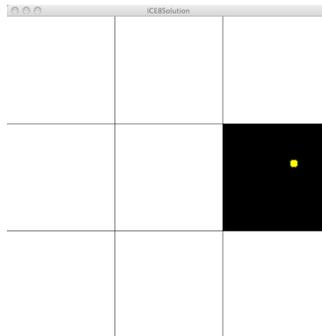
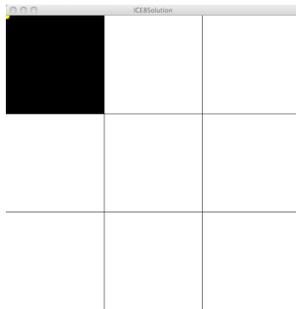
- The window is divided into three rows and three columns making nine blocks.
- The blocks are the same size and are square.
- When the mouse moves, the block in which the mouse is located turns black and all other blocks are white.
- The code in the function `drawBlackBlock ()` that detects which block must be black is missing – finish the function.

You *should* do this without magic numbers but, since it is an in-class exercise, you may use them with no penalty.

The mouse begins with values of mouseX and mouseY set to zero so the upper left corner block should be black when the program starts. The yellow circle is drawn to show the mouse location.

Examples:

Initial frame



Starting Code:

```
float numSegments; // number of rows and columns
float segmentSize; // width and height of each block

void setup ( )
{
  size( 600, 600 ); //must be square
  numSegments = 3;
  segmentSize = width/numSegments;
}

void draw ( )
{
  drawGrid( );
  drawBlackBlock( );
  showMouse( );
}

void drawBlackBlock( )
{
  fill( 0 );
}

void drawGrid( )
{
  background( 255 );
  // horizontal lines;
  line( 0, segmentSize, width, segmentSize); // top line
  line( 0, 2*segmentSize, width, 2*segmentSize );// bottom line
  // vertical lines:
  line( segmentSize, 0, segmentSize, height ); // left line
  line( 2*segmentSize, 0, 2*segmentSize, height );// right line
}

void showMouse( )
{
  fill( 255, 255, 0 );
  ellipse( mouseX, mouseY,15, 15 );
}
```