

My Solution on Assignment 2 - Problem 2

This is my Solution of Assignment 2 - Problem 2 from the [Computer Science Course CS106A](#) of Prof. [Mehran Sahami](#) at the [STANFORD University](#).

Target.java

```
/*
 * File: Target.java
 * Name:
 * Section Leader:
 * -----
 * This file is the starter file for the Target problem.
 * Assignment 2 , Problem 2
 */

import acm.graphics.*;
import acm.program.*;
import java.awt.*;

import javax.swing.plaf.synth.ColorType;

public class Target extends GraphicsProgram {

    public static final int dpi = 72; // 72 dots/pixel per inch is
    assumed

    public void run() {
        GetCanvasSizeAndFillVars(); // fills CanvasX and CanvasY Class-
        Variables
        DrawTargetAt(CanvasX/2,CanvasY/2); // Draw (almost) in the
        Middle of the Canvas
    }

    public void DrawTargetAt(int X, int Y) {
        /*
         * This Method draws the "logo" or "Target" itself. It defines
         the
         * LOOK of the Logo and how its build up.
         * X and Y define the CENTER POINT of the Logo/Target Sign.
         */
        DrawCircleAt(X,Y,1,Color.red);
        DrawCircleAt(X,Y,0.65,Color.white);
        DrawCircleAt(X,Y,0.3,Color.red);
    }

    public void DrawCircleAt(int CenterX,int CenterY,double
    RadiusInch,Color Colour) {
        /*
```

```
    * This Method draws a CIRCLE with its Centerpoint at X,Y with
    the Radius
    * given in INCH. Circles are of a SINGLE SOLID COLOR (filled).
    * Actual Size on the Screen depends on the Value set by the
    "dpi" Constant
    */

    //Calculate Radius in PIXEL
    double RadiusPixels = RadiusInch * dpi;
    //Calculate REAL Starting Point (Upper Left Coordinates) for a
    G0val Object
    double X = CenterX - RadiusPixels;
    double Y = CenterY - RadiusPixels;

    G0val aCircle = new G0val(X, Y, 2*RadiusPixels,
    2*RadiusPixels); // Width and Height is TWICE the Radius in Pixel
    aCircle.setColor( Colour ); // set Outline as same Color
    aCircle.setFillColor( Colour ); // set Fill as same Color
    aCircle.setFilled(true); // yes make it filled
    add(aCircle);
}

public void GetCanvasSizeAndFillVars() {
    /*
    * Get Canvas Sizes and fill in Class Variables
    */
    CanvasX = getWidth();
    CanvasY = getHeight();
}

public int CanvasX, CanvasY; // some public Class Variables
}
```

— Axel Werner 2011-02-06 16:26

[java](#), [karel](#), [stanford](#), [university](#), [cs106](#), [computer](#), [science](#), [learning](#), [programming](#)

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