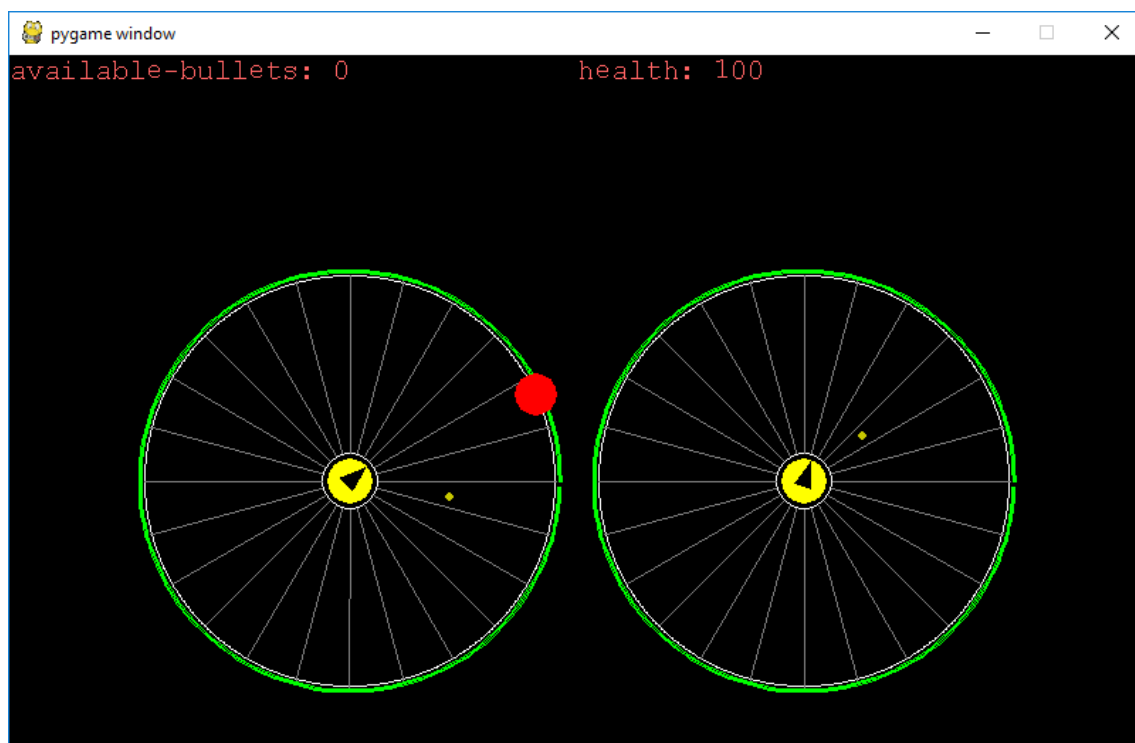


Tasks:

1. The basic lab is shown in the YouTube video. You can optionally add bonus features – talk to Jason about how much each would be worth.
2. Another possible option is to incorporate trig and finish the tower defense game from Lab8 (talk to Jason to plan this out, if you're interested). This can be a replacement for this lab or for bonus points – but make sure to talk to me first!
3. I want you to effectively use OOP in this lab.
4. **(10 points)** Bullet class: should handle moving, drawing, pointing of bullets (both the player and enemy should use the same class)
5. **(15 points)** Player class: movement around a selected tunnel (using the mouse), firing and managing bullets, etc.
6. **(20 points)** Tunnel class: rotating of the turret, firing, manging bullets, etc.
7. **(15 points)** Main program: tie everything together.
8. You can do this in one large file or multiple small files: your choice.
9. YouTube video: <https://youtu.be/0dcIMYV8RFE>

**Some (optional) bonus ideas: (I can estimate with you the number of bonus points you'd earn)**

- Use sprites instead of drawing objects (~4 points; more if you use your own [and can prove it!])
- Constrain player to an area (maybe based on health of enemy?)
- Have a weak point on the boss.
- Powerups for the player.
- Waves
- Forward Kinematics (e.g. <https://www.youtube.com/watch?v=NRgNDIVtmz0>)