Use Unity version 5.3.5f1 or later.

Part I

Your task is to optimise some legacy code (reduce CPU usage).

Objects behaviour (already implemented):

- Cannon cannot fire another cannonball until previous one is destroyed
- Cannon changes colour when it shoots and on cooldown (when ball is available)
- There can be up to 4 target instances
- Once a target is destroyed, it needs to be replaced by a new target

You can make any changes you like as long as the in-game visual result and objects behaviour stays the same.

Part II

Play Blocky Football or watch a YouTube gameplay video. Make an endless runner prototype (based on Blocky Football):

- Player character moves forward with speed increasing over time
- There are five lanes, player uses swipe gesture to change lanes
- Obstacles are randomly generated
- Game ends when player hits an obstacle

Task list:

- Add swipe left/right input (simulate touch input using mouse controls)
- Player movement -> moving forward, lane changes
- Calculate and display player score (based on distance)
- Obstacles placement (randomised, not pre-defined sets)
- Add results screen with your current score and best score (you can store best score in PlayerPrefs)
- Add obstacles moving towards the player (should collide with other obstacles)
- Add ability to restart the game (restart button on results screen)
- Add collectable score bonus items (glowing health orb) into the game
- Reposition world every 1000 units to prevent float overflow
- Camera shake on collision