Game design:

1. This is a FPS(First person shooter) game.
2. Character: only one: the firefighter
3. A video game screen capture

   Description automatically generated with low confidenceGoal: each turn, something is in fire. We need to use the right material to extinguish the fire
4. Control:
   1. We can control the direction of the hose
   2. We can choose the material to shoot, like water, gas, CO2.
   3. We can control the volume of the material we shoot
5. Scene: The scene means different turns. It also tells us what may be in fire.
   1. In school, It may be books
   2. At home, It may be gas.
   3. In factory, In may be metal etc.,
6. Win && lose:
   1. Win:
      1. Extinguish the fire before we get out of water or other things
      2. The more we left, the more score we can get.
   2. Lose:
      1. Firefighter choose the wrong material.
      2. Firefighter get hurt
      3. Do not extinguish the fire.

Technical Design && plan

1. Scene setup (the map): done
   1. background
   2. unfired things
2. Import input system
   1. Keyboard + mouse: done
   2. Xbox controller
3. Character Movement : done
   1. Move
   2. jump
4. Player look actions: done
5. Gravity: done
6. Shoot: open the hose
   1. State machine
      1. onFoot
      2. fire
7. Bullet: Material
   1. Water is Particle
   2. Shoot toward targets
   3. Collision detection
      1. State machine of fired things
8. Enemy && health: fire condition
   1. State machine
      1. Fire
      2. Fire under water
         1. Timer
            1. >= requirement == extinguished
            2. Refire if delta time < requirement && gap > gapTime
      3. Extinguishing
      4. Extinguished
9. Reload
   1. Auto(timer)
   2. Press a button