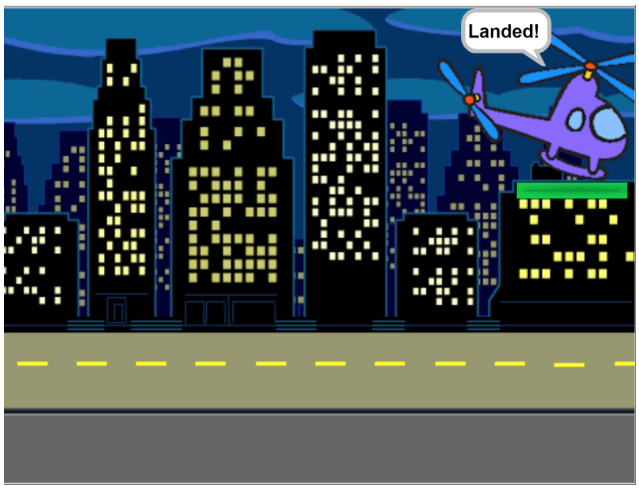

PROJECT HELICOPTER

Building the minimal helicopter (in class):

1. Background = variable
2. Costumes = helicopter, base structure
3. Sprites = helicopter, landing pad
4. Navigation = use arrow keys
5. Gravity = when helicopter not operated, it moves down

Optional improvements (home assignment = bonus points):

1. Costumes/navigation: Helicopter points in the direction it is flying
2. Navigation: physical gravity = helicopter accelerates down
3. Costumes: Indication that the helicopter engine is running (could be spinning fan, blinking lights, engine sounds)
4. Background: Moving clouds
5. Background: Landing pad and starting place separated (helicopter does not just sit in mid-air at the start).
6. Navigation/costumes: if a helicopter falls below ground level or runs into rock, it explodes!
7. Background: Title screen with instructions, final screen with 'Yay'

Suggested workflow:

Prepare Sprites and Costumes:

- Import or create a helicopter sprite with costumes for different orientations (left, right, up, down).
- Create a landing pad sprite.
- Create cloud sprites with costumes for different shapes and sizes.
- Optional: Create additional sprites for the landscape, explosion animation, title screen, and "Yay" message.

Helicopter Movement:

- Use arrow key events to control the helicopter's movement.

- Use a variable to track the helicopter's orientation (left/right).
- Change the helicopter's costume based on the orientation and movement (up/down).

Gravity Effect:

- Continuously check if any arrow keys are pressed. If not, move the helicopter down to simulate gravity.
- Optional: Increase the downward movement incrementally to simulate acceleration due to gravity.

Collision Detection:

- Detects collisions between the helicopter and the landing pad. Use the landing gear part of the helicopter's costume for precise detection.
- Detects collisions between the helicopter and clouds or landscape elements.

Landing Logic:

- If the helicopter touches the landing pad with its landing gear, trigger a successful landing sequence.
- If the helicopter touches any other part of the landing pad, the landscape, or falls below the stage, trigger an explosion sequence.

Cloud Movement:

- Continuously move clouds across the stage.
- When a cloud reaches the edge of the stage, wrap it around to the other side.

Indicators and Effects:

- Add blinking lights or spinning fans to the helicopter costume.
- Optional: Add engine sound effects when the helicopter is moving.
- Show the helicopter tilting slightly up or down based on the up/down movement.

Game Start and End Screens:

- Create a title screen with instructions. Use a "When green flag clicked" event to start the game.
- Create a final screen with a "Yay" message that appears after a successful landing.

Game Logic:

- Implement logic to reset the game after an explosion or successful landing.
- Keep track of the game state (playing, game over, etc.).