

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8" />
<meta name="viewport"
content="width=device-width,initial-
scale=1.0" />
<title>DOORWAYS</title>
<style>

html,body{height:100%;margin:0;back-
ground:#000;overflow:hidden;touch-
action:none;-webkit-user-select:none;}
    canvas{display:block;margin:0
auto;background:#000;image-
rendering:pixelated;touch-action:none;}
    /* small fallback UI for browsers that
block canvas focus */

#hint{position:fixed;left:8px;bottom:8px;
color:#fff;font-family:monospace;font-
size:12px;opacity:0.7}
</style>
</head>
<body>
<canvas id="game" width="800"
height="600"></canvas>
<div id="hint">Tap to start • Joystick left
• Buttons right</div>
<script>
/* =====
DOORWAYS (single-file)
- Top-down, 100 doors
- Rush / Blitz / Bound entities
- Overseer, lockers, flashlight, battery
- Touch + keyboard controls
- Procedural high-quality sounds (Web
Audio API)
- Save as doorways.html and open in
browser
=====
*/

```

```
// ---- Canvas & basic constants
const canvas =
document.getElementById('game');
const ctx = canvas.getContext('2d');
const W = canvas.width, H =
canvas.height;

const MAX_DOORS = 100;
const PLAYER_SPEED = 2.2;
const FLASH_DRAIN = 0.03; // tuned
const JOY_DEADZONE = 6;

// ---- Audio (Web Audio API) -
procedural, layered, stereo
let audioCtx = null;
let masterGain = null;

function ensureAudio() {
  if (audioCtx) return;
  audioCtx = new (window.AudioContext
|| window.webkitAudioContext)();
  masterGain = audioCtx.createGain();
  masterGain.gain.value = 0.9; // immersive volume (user requested)

  masterGain.connect(audioCtx.destination);
}

// short helper to play an AudioBuffer (for noise bursts)
function playBuffer(buffer, when=0, vol=1, pan=0, playbackRate=1) {
  try {
    const src =
audioCtx.createBufferSource();
    src.buffer = buffer;
    src.playbackRate.value =
playbackRate;
    const gain = audioCtx.createGain();
    gain.gain.value = vol;
```

```
const panner =
audioCtx.createStereoPanner();
panner.pan.value = pan;

src.connect(gain).connect(panner).connect(masterGain);
src.start(audioCtx.currentTime +
when);

return src;
} catch(e){/* ignore on older browsers */}
}

// make a short noise buffer (white noise)
// for clanks / whoosh bases
function makeNoiseBuffer(duration=0.5)
{
    const sr = audioCtx.sampleRate;
    const len = Math.floor(duration*samplerate);
    const buf =
audioCtx.createBuffer(1,len,sr);
    const data = buf.getChannelData(0);
    for (let i=0;i<len;i++){
        data[i] = (Math.random()*2-1) *
Math.pow(1 - i/len, 1.25); // fade out
    }
    return buf;
}

// procedural whoosh (sweep + filtered
// noise)
function playWhoosh({when=0, pan=0,
duration=0.9, vol=0.6}={}){
    const t0 = audioCtx.currentTime +
when;
    // sweep oscillator
    const osc =
audioCtx.createOscillator();
    const oscGain = audioCtx.createGain();
    osc.type = 'sawtooth';
    osc.frequency.setValueAtTime(120, t0);
```

```
osc.frequency.exponentialRampToValue-
AtTime(600, t0 + duration*0.7);
    oscGain.gain.setValueAtTime(0.02*vol,
t0);

oscGain.gain.exponentialRampToValue-
AtTime(0.0001, t0 + duration);
    const panner =
audioCtx.createStereoPanner();
    panner.pan.value = pan;

osc.connect(oscGain).connect(panner).c
onnect(masterGain);
osc.start(t0); osc.stop(t0 + duration);

// noise burst
const nb =
makeNoiseBuffer(duration*0.9);
playBuffer(nb, when, 0.5*vol, pan, 1);
}

// procedural roar (lower, aggressive)
function playRoar({when=0, pan=0,
duration=1.0, vol=0.9}={}) {
    const t0 = audioCtx.currentTime +
when;
    // low oscillator
    const osc =
audioCtx.createOscillator();
    const gain = audioCtx.createGain();
    osc.type = 'triangle';
    osc.frequency.setValueAtTime(60, t0);

    osc.frequency.linearRampToValueAtTime
(150, t0 + duration*0.4);
    gain.gain.setValueAtTime(0.0001, t0);

    gain.gain.linearRampToValueAtTime(0.35
*vol, t0 + duration*0.2);

    gain.gain.exponentialRampToValueAt-
Time(0.0001, t0 + duration);
```

```
const biquad =
audioCtx.createBiquadFilter();
biquad.type = 'lowpass';
biquad.frequency.setValueAtTime(900,
t0);

biquad.frequency.exponentialRampTo-
ValueAtTime(300, t0 + duration);
const panner =
audioCtx.createStereoPanner();
panner.pan.value = pan;

osc.connect(gain).connect(biquad).con-
nect(panner).connect(masterGain);
osc.start(t0); osc.stop(t0 + duration);

// layered noise for aggression
const nb =
makeNoiseBuffer(duration*0.9);
playBuffer(nb, when, 0.25*vol, pan, 1);
}

// metallic clank chain sequence (Bound)
function playChainsClank({when=0,
pan=0, vol=0.8}={}){
  const t0 = audioCtx.currentTime +
when;
  // a few pulses of filtered noise + ring
  for (let i=0;i<3;i++){
    const delay = i*0.25;
    // short noise hit
    const nb = makeNoiseBuffer(0.18);
    // process: bandpass to sound metallic
    const src =
audioCtx.createBufferSource();
    src.buffer = nb;
    const bp =
audioCtx.createBiquadFilter();
    bp.type = 'bandpass';
    bp.frequency.value = 1000 +
Math.random()*800;
    bp.Q.value = 6;
```

```
const g = audioCtx.createGain();
g.gain.value = 0.35*vol *
Math.pow(0.8, i);
const p =
audioCtx.createStereoPanner();
pxpan.value = pan +
(Math.random()*0.2-0.1);

src.connect(bp).connect(g).connect(p).c
onnect(masterGain);
src.start(t0 + delay);
}

// small bell/ring
const bell =
audioCtx.createOscillator();
const bellGain = audioCtx.createGain();
bell.type = 'sine';
bell.frequency.setValueAtTime(700, t0
+ 0.35);
bellGain.gain.setValueAtTime(0.0001,
t0 + 0.35);

bellGain.gain.linearRampToValueAtTime(
0.2*vol, t0 + 0.36);

bellGain.gain.exponentialRampToValue-
AtTime(0.0001, t0 + 1.0);

bell.connect(bellGain).connect(master-
Gain);
bell.start(t0 + 0.35); bell.stop(t0 + 1.0);
}

// helper to kick audio when approach
starts (subtle rumble)
function playApproachTone({when=0,
pan=0, duration=6, vol=0.06}={}){
const t0 = audioCtx.currentTime +
when;
const osc =
audioCtx.createOscillator();
const g = audioCtx.createGain();
```

```
osc.type='sine';
osc.frequency.setValueAtTime(40, t0);

osc.frequency.linearRampToValueAtTime
(120, t0 + duration);
g.gain.setValueAtTime(0.001*vol, t0);

g.gain.linearRampToValueAtTime(0.12*vo
l, t0 + duration);
const bp =
audioCtx.createBiquadFilter();
bp.type='lowpass';
bp.frequency.setValueAtTime(400, t0);
const p =
audioCtx.createStereoPanner();
pxpanxvalue = pan;

osc.connect(g).connect(bp).connect(p).
connect(masterGain);
osc.start(t0); osc.stop(t0 + duration +
0.1);
}

// -----
// Game state variables
// -----
let doorNum = 1;
let gameOver = false;
let inMenu = true;
let gameResult = "";
let lockers = [];
let overseer = null; // {x,y,r}
let lightsBroken = false;
let darkRoom = false;
let hidden = false;

let player = { x: 400, y: 300, w: 12, h: 12,
color: "#80ff80" };
let flashlight = true;
let flashlightBattery = 100;

let nextSpawnTimeout = null;
```

```
let spawnTimer = 0;
let entityActive = false; // whether Rush/
Blitz/Bound is currently passing
let currentVariant = null; //
"rush"|"blitz"|"bound"
let approaching = false; // flicker/warning
phase
let approachTimeout = null;
let passTimeout = null;

// joystick + touch UI
let keys = {};
let joystick = { active:false, startX:0,
startY:0, x:0, y:0, dx:0, dy:0 };
const buttons = {
  hide: { x: W-70, y: H-100, r: 34,
pressed:false },
  flash: { x: W-170, y: H-100, r: 34,
pressed:false },
  restart: { x: W-120, y: H/2, w: 100, h:
50 }
};

// input handlers
document.addEventListener('keydown',
(e)=>{
  const k = e.key.toLowerCase();
  keys[k] = true;
  if (inMenu && exkey === 'Enter')
startGame();
  if (gameOver && k === 'r') startGame();
});
document.addEventListener('keyup',
e=>{ keys[exkey.toLowerCase()] =
false; });

canvas.addEventListener('touchstart',
touchHandler, {passive:false});
canvas.addEventListener('touchmove',
touchHandler, {passive:false});
canvas.addEventListener('touchend',
touchEndHandler, {passive:false});
```

```
canvas.addEventListener('mousedown',  
mouseDown, false);  
canvas.addEventListener('mousemove',  
mouseMove, false);  
canvas.addEventListener('mouseup',  
mouseUp, false);  
  
// tap-to-start (also resumes audio)  
canvas.addEventListener('touchstart',  
(e)=>{  
    if (inMenu) {  
        // must resume audio on user gesture  
        ensureAudio();  
        if (audioCtx.state === 'suspended')  
            audioCtx.resume();  
        startGame();  
    }  
}, {passive:false});  
  
// mouse fallback to allow desktop  
clicking on start  
canvas.addEventListener('click', (e)=>{  
    if (inMenu) {  
        ensureAudio();  
        if (audioCtx && audioCtx.state ===  
'suspended') audioCtx.resume();  
        startGame();  
    }  
});  
  
function touchHandler(ev) {  
    ev.preventDefault();  
    if (!audioCtx) { ensureAudio(); if  
(audioCtx.state === 'suspended')  
        audioCtx.resume(); }  
    const rect =  
        canvas.getBoundingClientRect();  
    if (inMenu) { startGame(); return; }  
    for (let t=0; t<ev.touches.length; t++){  
        const touch = ev.touches[t];  
        const x = (touch.clientX - rect.left) /  
            rect.width * W;
```

```
const y = (touch.clientX - rect.top) /  
rect.height * H;  
if (x < W/2) {  
    joystick.active = true;  
    joystick.startX = x; joystick.startY =  
y;  
    joystick.xx = x; joystick.xy = y;  
    joystick.dx = 0; joystick.dy = 0;  
} else {  
    // buttons area  
    const hb = buttons.hide, fb =  
buttons.flash, rb = buttons.restart;  
    if (!gameOver) {  
        if (distance(x,y,hb.x,hb.y) < hb.r)  
hbpressed = true;  
        if (distance(x,y,fb.x,fb.y) < fb.r)  
fbpressed = true;  
    } else {  
        if (x > rb.x && x < rb.x + rb.w && y >  
rb.y && y < rb.y + rb.h) {  
            startGame();  
        }  
    }  
}  
}  
  
}
```

```
function touchEndHandler(ev) {  
    ev.preventDefault();  
    if (ev.touches.length === 0) {  
        joystick.active = false;  
        joystick.dx = joystick.dy = 0;  
        buttons.hidepressed = false;  
        buttons.flashpressed = false;  
    }  
}
```

```
function mouseDown(e){  
    const rect =  
canvas.getBoundingClientRect();  
    const x = (e.clientX - rect.left) /  
rect.width * W;
```

```
const y = (exclientY - rectxtop) /  
rectxheight × H;  
if (inMenu) { startGame(); return; }  
if (x < W/2) {  
    joystickxactive = true; joystickxstartX  
= x; joystickxstartY = y; joystickxx = x;  
joystickxy = y;  
} else {  
    const hb = buttonsxhide, fb =  
buttonsxflash, rb = buttons.restart;  
    if (!gameOver) {  
        if (distance(x,y,hb.x,hb.y) < hb.r)  
hbxpressed = true;  
        if (distance(x,y,fb.x,fb.y) < fb.r)  
fbxpressed = true;  
    } else {  
        if (x > rb.x && x < rb.x + rb.w && y >  
rb.y && y < rb.y + rb.h) startGame();  
    }  
}  
}
```

```
function mouseMove(e){  
    if (!joystick.active) return;  
    const rect =  
canvasxgetBoundingClientRect();  
    const x = (exclientX - rectxleft) /  
rectxwidth × W;  
    const y = (exclientY - rectxtop) /  
rectxheight × H;  
    joystickxdx = x - joystick.startX;  
    joystickxdy = y - joystick.startY;  
}  
function mouseUp(e)  
{ joystickxactive=false; joystickxdx=0;  
joystickxdy=0;  
buttonsxhidexpressed=false;  
buttonsxflashxpressed=false; }  
  
// helpers  
function distance(x1,y1,x2,y2){ return  
Math.hypot(x1-x2,y1-y2); }
```

```
function randRange(a,b){ return a +  
Math.random()*(b-a); }  
function randInt(a,b){ return  
Math.floor(randRange(a,b)); }  
function chance(p){ return  
Math.random() < p; }  
  
// -----  
// Room generation & reset  
// -----  
function generateRoom() {  
    lockers.length = 0;  
    overseer = null;  
    lightsBroken = false;  
    hidden = false;  
    if (doorNum <= 50) darkRoom =  
chance(0.10);  
    else if (doorNum <= 90) darkRoom =  
chance(0.30);  
    else darkRoom = true;  
    const numLockers = randInt(1,3);  
    for (let i=0;i<numLockers;i++){  
        lockers.push({ x: randInt(100, W-60),  
y: randInt(100, H-60), w:30, h:20 });  
    }  
    if (darkRoom && chance(0.5)) {  
        overseer = { x: randInt(100, W-100), y:  
randInt(100, H-100), r: 25 };  
    }  
    // small battery top-up between rooms  
    flashlightBattery = Math.min(100,  
flashlightBattery + 20);  
    // schedule spawn timer reset  
    resetSpawnTimer();  
}  
  
// -----  
// Spawn system (Rush/Blitz/Bound)  
// -----  
function resetSpawnTimer() {  
    // Clear previous timers  
    if (nextSpawnTimeout)
```

```
{ clearTimeout(nextSpawnTimeout);
nextSpawnTimeout = null; }

spawnTimer = 0;
entityActive = false;
approaching = false;

}

// choose variant when spawn cycle
triggers:
// Blitz 5% chance, Bound 10% chance,
else Rush
function chooseVariant() {
    // Bound replaces Rush with 10%
    if (chance(0.10)) return 'bound';
    if (chance(0.05)) return 'blitz';
    return 'rush';
}

function scheduleNextSpawn() {
    // Called after previous pass finishes or
on room enter
    // spawn interval random 1-3 minutes
(ms)
    const delay =
Math.floor(randRange(60000, 180000));
    // but if player is in dark room and not in
last ten, skip spawn by rescheduling
    // We will set a timeout that checks the
dark room rule upon execution
    nextSpawnTimeout = setTimeout(() => {
        // check rule
        if (darkRoom && doorNum <= 90) {
            // skip and reschedule
            scheduleNextSpawn();
            return;
        }
        startApproach();
    }, delay);
}

function startApproach() {
    // Start the flicker & approach phase,
```

```
choose variant
    approaching = true;
    currentVariant = chooseVariant(); // 
    'rush' | 'blitz' | 'bound'
    // flicker count: blitz 2 quick flickers,
    others 1
    const flicks = (currentVariant ===
    'blitz') ? 2 : 1;
    // flicker visual & short buzz
    flickerLights(flicks, 300);
    // play flicker sound
    if (audioCtx) {
        // light flicker buzz
        playWhoosh({when:0, pan:0,
duration:0.18, vol:0.25});
    }
    // approach delay depends on variant
    let approachDelay = 0;
    if (currentVariant === 'blitz')
approachDelay =
Math.floor(randRange(5000,7000));
    else if (currentVariant === 'rush')
approachDelay =
Math.floor(randRange(10000,15000));
    else if (currentVariant === 'bound')
approachDelay =
Math.floor(randRange(14000,17000));
    // play approach ambient if long enough
    if (audioCtx) {
        // stereo pan left-right random small
        playApproachTone({when:0, pan:
(Math.random()*2-1)*0.3, duration:
Math.max(approachDelay/1000, 3),
vol:0.08});
    }
    // chain clanks for bound - play closer
    to the end of approach
    if (currentVariant === 'bound' &&
audioCtx) {
        // schedule clank ~0.9s before pass
        (but after half of approach)
        const clankWhen = Math.max(0,
```

```
(approachDelay - 900) / 1000);  
setTimeout(()=> {  
    // clinking chains  
    playChainsClank({when:0, pan:  
(Math.random()*2-1)*0.5, vol:1.0});  
}, Math.max(0, approachDelay - 900));  
}  
  
// schedule actual pass  
approachTimeout = setTimeout(()=> {  
    approaching = false;  
    startPass();  
}, approachDelay);  
}
```

```
function startPass() {  
    entityActive = true;  
    // play passing sound and visual  
    movement  
    const variant = currentVariant; //  
'rush'/'blitz'/'bound'  
    const passDuration = (variant ===  
'blitz') ? 500 : (variant === 'bound' ?  
1500 : 1000); // ms  
    const color = (variant === 'blitz') ?  
'rgba(255,20,20,0.9)' : (variant ===  
'rush' ? 'rgba(255,205,40,0.92)' :  
'rgba(160,160,160,0.85)');  
    // play roar/whoosh aligned with pass  
    if (audioCtx) {  
        if (variant === 'blitz')  
playRoar({when:0, pan:0, duration:0.6,  
vol:1.2});  
        else if (variant === 'rush')  
playWhoosh({when:0, pan:0,  
duration:0.9, vol:1.0});  
        else if (variant === 'bound')  
{ playRoar({when:0.2, pan:0,  
duration:1.5, vol:1.0}); }  
    }  
    // animate pass across screen (we will  
    handle drawing in render loop by  
    marking pass start)
```

```
passStartTime = performance.now();
passInfo = { variant, color, duration:
passDuration, start: passStartTime };
// when pass ends:
passTimeout = setTimeout(()=> {
    // If player not hidden -> lose
    if (!hidden) {
        endGame(`${
variant.charAt(0).toUpperCase() +
variant.slice(1)} passed and caught you!
`);
    } else {
        // survived; lights break permanently
        lightsBroken = true;
        // schedule next spawn if not end
        game
        if (!gameOver)
scheduleNextSpawn();
    }
entityActive = false;
currentVariant = null;
}, passDuration);
}
```

```
// flicker helper
function flickerLights(times=1,
speed=300) {
let c = 0;
let state = lightsBroken;
const doF = ()=>{
    state = !state;
    lightsBroken = state;
    c++;
    if (c < times*2) setTimeout(doF,
speed);
else {
    // restore after short pause (unless it
should be broken later)
    lightsBroken = false;
}
};
doF();
```

```
}

// variables for drawing the passing
entity
let passStartTime = 0;
let passInfo = null;

// -----
// Game lifecycle: start/restart
// -----
function startGame(){
    // ensure audio (first user gesture)
    ensureAudio();
    if (audioCtx.state === 'suspended')
        audioCtx.resume();

    // reset state
    inMenu = false;
    gameOver = false;
    gameResult = '';
    doorNum = 1;
    playerxx = 20; playerxy = H/2;
    flashlight = true;
    flashlightBattery = 100;
    generateRoom();
    scheduleNextSpawn();
}

// end game
function endGame(msg) {
    gameOver = true;
    gameResult = msg + ` You reached
door ${doorNum}.`;

    // clear timers
    if (nextSpawnTimeout)
        { clearTimeout(nextSpawnTimeout);
        nextSpawnTimeout = null; }

    if (approachTimeout)
        { clearTimeout(approachTimeout);
        approachTimeout = null; }

    if (passTimeout)
        { clearTimeout(passTimeout);
        passTimeout = null; }
```

```
}

// -----
// Update loop
// -----

let lastTS = 0;
function update(ts) {
    if (!lastTS) lastTS = ts;
    const dt = ts - lastTS;
    lastTS = ts;
    if (!inMenu && !gameOver && !entityActive) {
        // movement keyboard or joystick
        let mvx = 0, mvy = 0;
        if (!hidden) {
            // keyboard
            if (keys['w']) mvy -= PLAYER_SPEED;
            if (keys['s']) mvy += PLAYER_SPEED;
            if (keys['a']) mvx -= PLAYER_SPEED;
            if (keys['d']) mvx += PLAYER_SPEED;
            // joystick
            if (joystick.active) {
                const dx = joystick.x - joystick.startX;
                const dy = joystick.y - joystick.startY;
                // map to movement with deadzone
                if (Math.abs(dx) > JOY_DEADZONE)
                    mvx += (dx > 0 ? 1 : -1)*PLAYER_SPEED;
                if (Math.abs(dy) > JOY_DEADZONE)
                    mvy += (dy > 0 ? 1 : -1)*PLAYER_SPEED;
            }
        }
        player.x = Math.max(0, Math.min(W - player.w, player.x + mvx));
        player.y = Math.max(0, Math.min(H - player.h, player.y + mvy));
    }

    // flashlight toggle via keyboard or button
    if ((keys['f'] && !inMenu) ||
        (keys['z'] && !inMenu)) {
        if (lighting && !button)
            lighting = false;
        else
            lighting = true;
    }
}
```

```
buttons.flash.pressed) {  
    // only toggle on press; to avoid  
    repeated toggles, clear keys/button  
    immediately  
    flashlight = !flashlight;  
    keys['f'] = false;  
    buttons.flash.xpressed = false;  
}  
  
// hide/unhide  
if ((keys['e'] && !inMenu) ||  
buttons.hide.pressed) {  
    // toggle hide (only when near a  
    locker)  
    if (hidden) hidden = false;  
    else {  
        for (let l of lockers) {  
            if (distance(player.x + player.w/2,  
player.y + player.h/2, l.x + l.w/2, l.y + l.h/  
2) < 40) {  
                hidden = true; break;  
            }  
        }  
    }  
    keys['e'] = false;  
    buttons.hide.xpressed = false;  
}  
  
// battery drain  
if (flashlight && flashlightBattery > 0  
&& !hidden) {  
    flashlightBattery -= FLASH_DRAIN *  
(dt/16.67); // scale with frame time  
    if (flashlightBattery <= 0)  
{ flashlightBattery = 0; flashlight =  
false; }  
}  
  
// Overseer detection  
if (overseer && flashlight &&  
flashlightBattery > 0 && !hidden) {  
    const d = distance(player.x + player.w/  
2, player.y + player.h/2, overseer.x,
```

```
overseer.y);
    if (d < overseer.r + 120) {
        endGame('The Overseer reacted to
your light!');
    }
}

// movement reaching door (right edge)
if (!inMenu && !gameOver && player.x >
W - 24) {
    doorNum++;
    if (doorNum > MAX_DOORS) {
        endGame('You escaped!');
    } else {
        // next room
        playerxx = 20; playerxy = H/2;
        generateRoom();
        // cancel active entity & timers in
previous room
        if (nextSpawnTimeout)
        { clearTimeout(nextSpawnTimeout);
        nextSpawnTimeout=null; }
        if (approachTimeout)
        { clearTimeout(approachTimeout);
        approachTimeout=null; }
        if (passTimeout)
        { clearTimeout(passTimeout);
        passTimeout=null; }
        entityActive = false;
        currentVariant = null;
        aproachStarted = false;
        // schedule next spawn
        scheduleNextSpawn();
    }
}
}

// -----
// Drawing
// -----
function render(ts) {
    // clear
```

```
ctx.clearRect(0,0,W,H);

if (inMenu) {
    // Title screen
    ctx.fillStyle = "#111";
    ctx.fillRect(0,0,W,H);
    ctx.fillStyle = "#fff";
    ctx.textAlign = "center";
    ctx.textBaseline = "middle";
    ctx.font = "56px monospace";
    ctx.fillText("DOORWAYS", W/2, H/2 - 40);
    ctx.font = "20px monospace";
    ctx.fillText("TAP ANYWHERE TO START", W/2, H/2 + 30);
    ctx.font = "14px monospace";
    ctx.fillText("Mobile: left joystick • right buttons", W/2, H/2 + 70);
    return;
}

// background (darkness depending)
const darkBg = darkRoom && !flashlight && !lightsBroken;
ctx.fillStyle = darkBg ? "#040404" : "#333";
ctx.fillRect(0,0,W,H);

// if flickering approaching (visual effect)
if (approaching) {
    // subtle global flicker effect by tint overlay
    const flick = Math.floor(ts/120) % 2;
    if (flick === 0) {
        ctx.fillStyle =
'rgba(255,255,255,0.02)';
        ctx.fillRect(0,0,W,H);
    } else {
        ctx.fillStyle = 'rgba(0,0,0,0.03)';
        ctx.fillRect(0,0,W,H);
    }
}
```

```
}

// lockers (pixel-art rectangles)
ctx.fillStyle = "#6b4f2f";
for (let l of lockers) {
    ctx.fillRect(Math.round(l.x),
    Math.round(l.y), l.w, l.h);
    // locker door line
    ctx.strokeStyle = "#403020";
    ctx.lineWidth = 1;
    ctx.beginPath(); ctx.moveTo(l.x + 4, l.y
    + 2); ctx.lineTo(l.x + l.w - 4, l.y + 2);
    ctx.stroke();
}

// overseer glow if present (draw before
lighting so it softly shows in dark)
if (overseer) {
    const grad =
    ctx.createRadialGradient(overseer.x,
    overseer.y, 0, overseer.x, overseer.y,
    overseer.r*3);
    grad.addColorStop(0,
    "rgba(0,160,255,0.9)");
    grad.addColorStop(1,
    "rgba(0,160,255,0)");
    ctx.fillStyle = grad;
    ctx.beginPath(); ctx.arc(overseer.x,
    overseer.y, overseer.r*3, 0, Math.PI*2);
    ctx.fill();
    // small orb center
    ctx.fillStyle = "rgba(0,200,255,0.9)";
    ctx.beginPath(); ctx.arc(overseer.x,
    overseer.y, overseer.r, 0, Math.PI*2);
    ctx.fill();
}

// player
if (!hidden) {
    ctx.fillStyle = player.color;
    ctx.fillRect(Math.round(player.x),
    Math.round(player.y), player.w, player.h);
```

```
    } else {
        // show subtle hidden indicator
        ctx.fillStyle = "#888";
        ctx.fillRect(Math.round(player.x),
        Math.round(player.y), player.w, player.h);
    }

    // flashlight lighting (destination-out
    // trick)
    if ((darkRoom || lightsBroken) &&
    flashlight && flashlightBattery > 0 && !
    hidden) {
        // dark overlay
        ctx.fillStyle = "rgba(0,0,0,0.92)";
        ctx.fillRect(0,0,W,H);

        // radial hole
        ctx.save();
        ctx.globalCompositeOperation =
        'destination-out';
        const radius = 100 +
        (flashlightBattery/100)*120;
        const grad =
        ctx.createRadialGradient(player.x +
        player.w/2, player.y + player.h/2, 20,
        player.x + player.w/2, player.y + player.h/
        2, radius);
        grad.addColorStop(0,
        'rgba(255,255,220,0.95)');
        grad.addColorStop(1, 'rgba(0,0,0,0)');
        ctx.fillStyle = grad;
        ctx.beginPath();
        ctx.arc(player.x + player.w/2, player.y +
        player.h/2, radius, 0, Math.PI*2);
        ctx.fill();
        ctx.restore();
    } else if ((darkRoom || lightsBroken)) {
        // fully dark overlay
        ctx.fillStyle = "rgba(0,0,0,0.9)";
        ctx.fillRect(0,0,W,H);
    }
}
```

```
// if passing entity active, draw it as a
sweeping colored bar
if (entityActive && passInfo) {
    const now = performance.now();
    const elapsed = now - passInfo.start;
    const pct = Math.min(1, elapsed /
passInfo.duration);
    // sweep left -> right across screen
    const sweepWidth = 200;
    const x = -sweepWidth + pct × (W +
sweepWidth×2);
    ctx.fillStyle = passInfo.color;
    // add blur-like gradient
    ctx.fillRect(x, -20, sweepWidth,
H+40);
}

// HUD
ctx.fillStyle = "#fff";
ctx.font = "14px monospace";
ctx.textAlign = "left";
ctx.fillText("Door: " + doorNum, 16, 20);
ctx.fillText("Battery: " + Math.max(0,
Math.floor(flashlightBattery)) + "%", 16,
40);
if (hidden) ctx.fillText("[HIDDEN]", 16,
60);
if (darkRoom) ctx.fillText("(Dark
Room)", 16, 80);

// draw touch UI (joystick indicator)
if (joystick.active) {
    const cx = joystick startX, cy =
joystick startY;
    const dx = joystick dx || 0, dy =
joystick dy || 0;
    // background circle
    ctx.strokeStyle = "#fff";
    ctx.lineWidth = 2;
    ctx.beginPath(); ctx.arc(cx, cy, 42, 0,
Math.PI*2); ctx.stroke();
    // thumb
```

```
const tx = cx + Math.max(-32,
Math.min(32, dx));
const ty = cy + Math.max(-32,
Math.min(32, dy));
ctx.fillStyle = "#ccc"; ctx.beginPath();
ctx.arc(tx, ty, 18, 0, Math.PI*2); ctx.fill();
} else {
    // draw a faint joystick hint on left
    bottom
    ctx.strokeStyle =
"rgba(255,255,255,0.12)"; ctx.lineWidth
= 1;
    ctx.beginPath(); ctx.arc(80, H-110, 36,
0, Math.PI*2); ctx.stroke();
}

// action buttons
drawButton(buttons.hide, "E");
drawButton(buttons.flash, "F");

// game over overlay & restart button
if (gameOver) {
    ctx.fillStyle = "rgba(0,0,0,0.6)";
    ctx.fillRect(0,0,W,H);
    ctx.fillStyle = "#fff"; ctx.textAlign =
"center"; ctx.font = "36px monospace";
    ctx.fillText(gameResult, W/2, H/2 -
40);
    ctx.font = "16px monospace";
    ctx.fillText("Tap RESTART or press R",
W/2, H/2 + 6);
    // restart button
    const rb = buttons.restart;
    ctx.fillStyle = "#444";
    ctx.fillRect(rb.x, rb.y, rb.w, rb.h);
    ctx.strokeStyle = "#fff";
    ctx.strokeRect(rb.x, rb.y, rb.w, rb.h);
    ctx.fillStyle = "#fff"; ctx.font = "16px
monospace"; ctx.fillText("RESTART",
rb.x + rb.w/2, rb.y + rb.h/2 + 2);
}
}
```

```
function drawButton(b, label) {
    ctx.beginPath();
    ctx.arc(b.x, b.y, b.r, 0, Math.PI*2);
    ctx.fillStyle = (b.pressed) ?
"rgba(255,255,255,0.25)" :
"rgba(255,255,255,0.12)";
    ctx.fill();
    ctx.strokeStyle = "#fff"; ctx.lineWidth
= 1; ctx.stroke();
    ctx.fillStyle = "#fff"; ctx.font = "16px
monospace"; ctx.textAlign = "center";
    ctx.textBaseline = "middle";
    ctx.fillText(label, b.x, b.y+1);
}

// -----
// Main loop
// -----
function mainLoop(ts) {
    update(ts);
    render(ts);
    requestAnimationFrame(mainLoop);
}
requestAnimationFrame(mainLoop);

// start scheduling initial spawn only after
// entering first room
function scheduleNextSpawn() {
    // clear any existing
    if (nextSpawnTimeout)
        clearTimeout(nextSpawnTimeout);
    // pick 1-3 minutes
    const delay =
        Math.floor(randRange(60000, 180000));
    nextSpawnTimeout = setTimeout(() => {
        // rule: cannot spawn in dark rooms
        unless last 10 doors
        if (darkRoom && doorNum <= 90) {
            scheduleNextSpawn(); return;
        }
        startApproach();
    }, delay);
}
```

```
    }, delay);
}

// -----
// simple helpers and small polish
// -----


function distance(a,b,c,d){ return
Math.hypot(a-c,b-d); }

// make sure UI positions adjust with
// canvas size (if any)
function layoutButtons() {
    buttonsxhidexx = W - 70;
    buttonsxhidexy = H - 100;
    buttonsxflashxx = W - 170;
    buttonsxflashxy = H - 100;
    buttonsxrestartxx = W - 120;
    buttonsxrestartxy = H/2 - 25;
}
layoutButtons();

// initial menu draw
render();

// Ensure we cancel timers on page
// unload (cleanup)
window.addEventListener('beforeunload'
, ()=> {
    if (nextSpawnTimeout)
        clearTimeout(nextSpawnTimeout);
    if (approachTimeout)
        clearTimeout(approachTimeout);
    if (passTimeout)
        clearTimeout(passTimeout);
});
</script>
</body>
</html>
```