(initially)
WR y = 50

LB y = 50 + 5

Constraint → 2 ft away
↑ figure out thru research

Fix x position

preconditions
- ensure collision w/in 5 seconds

$$?(t<5) \frac{\{\ DL,\quad DL\ \}}{\{\ DL,\quad QB\ \}} > WRy' \quad t \leq 5$$
?(t=5)

5 seconds

$\{\ ?(WR\ open)\ \{throw\}$
↳ xyz distance from LB,
WRy > LB
WRy > LB + xyz

ODE

$t' = 1$

$\}*$

Linebacker

$\left(?\left(\begin{array}{c} LB < WR + 1, \\ or\ WR - 1 > LB \end{array}\right)\right)^d$

pass interference

← if not passed
QB unhurt

?(T ≤ 40) ← if passed ⟹ end

(QB unhurt & passed & T <= 40)
   safe   efficient   physics

VWR > VLB ✓

$\frac{300 + 4D}{2}$ ✗
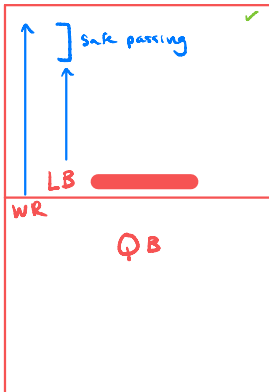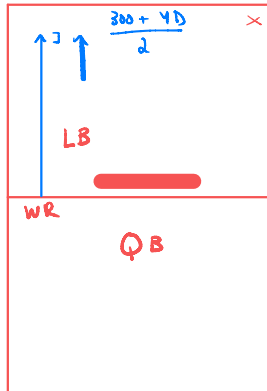
simplified
- Buffer to delay pass
- curr timer goals for LB

issues
- leaving field
- subtleties of pass interference

thrown ⟺ open

(OL, DL, QB) (DL, QB)

$$\langle \quad \underline{\text{o de 1, 2.}}$$

WR y $\geqslant$ LB + buffer

def variables

bool gameend = False

/* (WR OPEN ⟺ pass)

⟹ gameend.

DL
QB
WR
LB →

$\Big\{$? (WR open) throw   game_end = true

$\big\{$ y $QB' = a_y \theta \rho^2 \vee v_y QB$

& $t \leq 40$

& ! gameend   & not open $\}$

$\}^*$

$\rangle$ (QB unhurt & passed & $T \leq 40$)