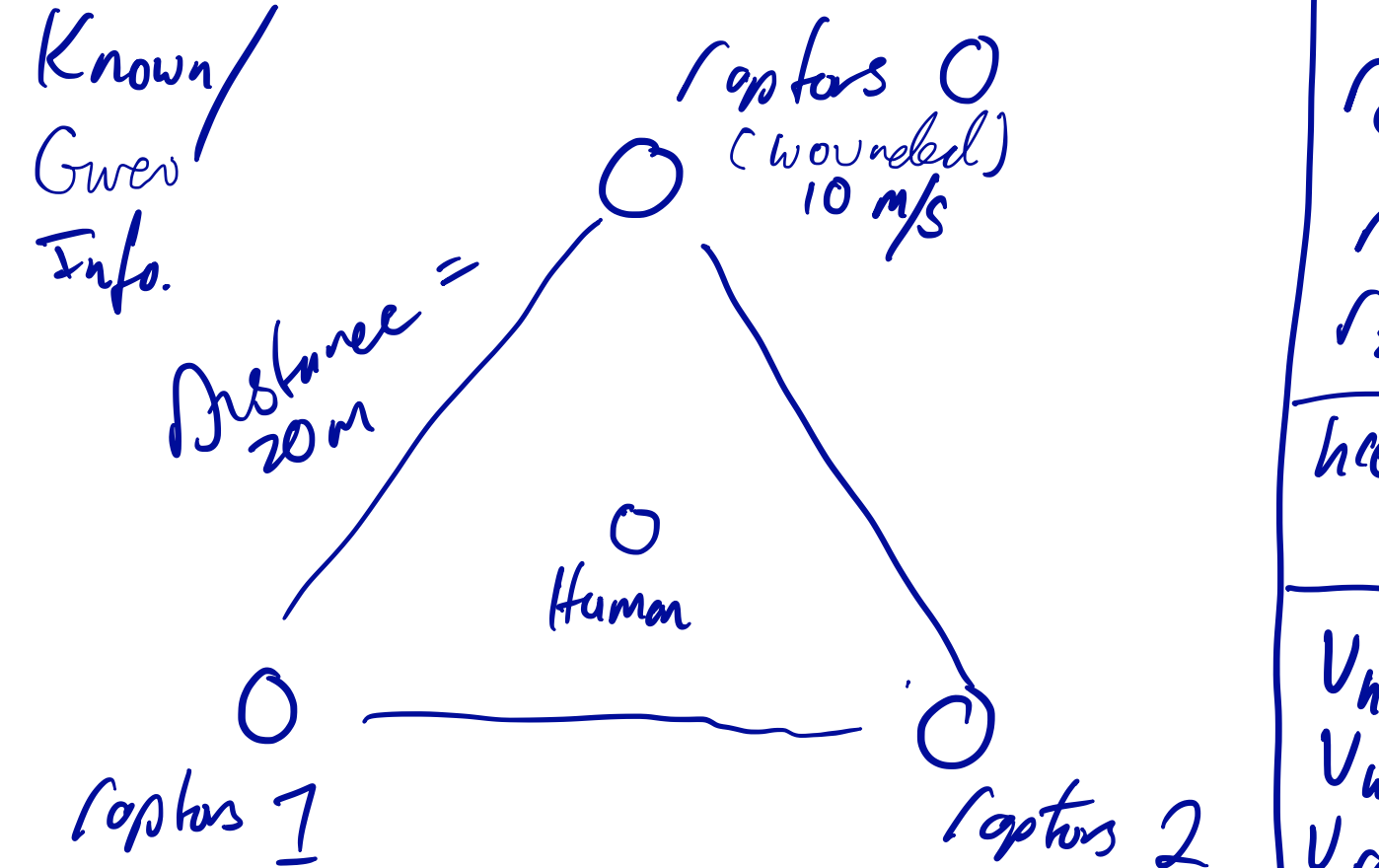


Lecture 2: CS 314

Known/
Given
Info.



$h(t)$ = position of human
(x,y)

$r_0(t)$ = pos of raptor 0
(x,y)

$r_1(t)$ = pos of raptor 1
 $r_2(t)$ = pos of raptor 2

$h(0)$ = known, $r_0(0)$, $r_1(0)$, $r_2(0)$
= (0,0) Known

$V_{\text{human}} = 6.7 \text{ m/s}$

$V_{\text{wounded}} = 10 \text{ m/s}$

$V_{\text{raptor}} = 17 \text{ m/s}$



$$\frac{dh(t)}{dt} = \begin{bmatrix} \cos \theta \\ \sin \theta \end{bmatrix} V_{\text{human}}$$



$h(t) - r(t)$ is the direction
the raptor will run.

$$d_{r_0}(t) = \frac{h(t) - r_0(t)}{\|h(t) - r_0(t)\|} V_{\text{wounded}}$$

$$\|(x,y)\| = \sqrt{x^2 + y^2}$$