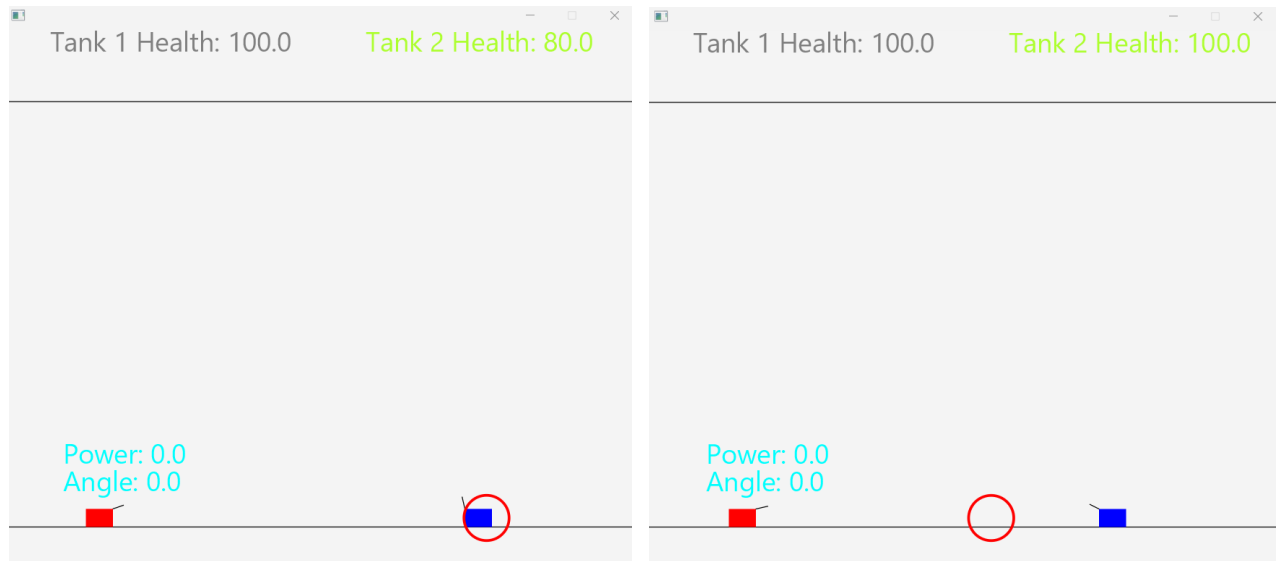


# User Guide

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The user interface details the health, angle, and power of the tanks, as well as the tanks themselves, and the ground. The program can calculate the resulting position from the initial velocity and angle of a projectile fired from a tank.



Sample Output:

New Calculation starting...

Arguments passed check

Got a hit!

Tank: t2 has: 80.0 health left!

Distance of tank 1: 100.0 Distance of tank 2: 500.0

Distance from first tank: 380.1875649234729 Distance from second tank: 19.812435076527095

Calculation Complete

Calculation Results:

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Initial Velocity (POWER): 63.0

Angle (rads): 2.530727415391778

Velocity X: -51.60657879020649

Velocity Y: 36.13531549011589

Time of Flight: 7.367036797169397

Max Height Reached: 596.5525497232522

Final X Position: 480.1875649234729

Instructions:

W = Power +1 Max is Tank's power maximum (set on tank creation)

S = Power -1 Min is 1

A = Angle of Tank Launcher -1

D = Angle of Tank Launcher +1

Space = Set calculations AND Prepare for Missile Launch

Enter = Launch Missile

## README

Notable design features: The program uses kinematic equations to calculate the resultant position of a projectile.

Bugs: The Angle and Power text doesn't switch over to the other tank when a player's turn ends, you have to move the tank or adjust the angle or power for it to switch. The missile doesn't connect sometimes on shots that should hit, haven't figured out why.

## Debugging Collaborators

None

Total Hours: 24