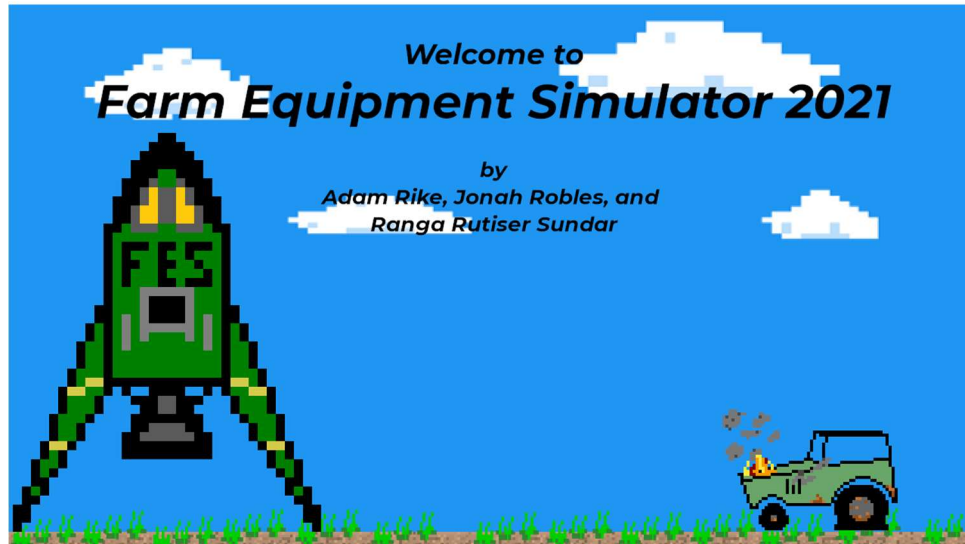


Farm Equipment Simulator 2021 User Guide

by Adam Rike, Jonah Robles, and Ranga Rutiser Sundar



System Requirements:

Windows 10 or 11 x64 (latest version)

MATLAB® R2021a Update 5 or newer

MATLAB® Image Processing Toolbox version 11.3 or newer

MATLAB® Communications Toolbox version 7.5 or newer

MATLAB® SpriteKit Framework version 1.2.0.1 or newer

Recommended: MATLAB® R2021b Update 1 or newer (This version improves performance)

Installation Instructions:

You must have MATLAB® installed on your system.

To install the game's dependencies:

- 1) Open MATLAB® and navigate to the Apps tab at the top of the ribbon.*
- 2) Select "Get More Apps." The Add-On Explorer will open.*
- 3) In the search box at the top right, type "Image Processing."*
- 4) Click on the Image Processing Toolbox*
- 5) Click Install.*
- 6) Search for and install the Communications Toolbox and SpriteKit Framework.*

Next, open the game folder and open gameMain.m. In MATLAB®'s Editor tab, click "Run." MATLAB® may prompt you to change the current folder. If this appears, choose "Change Folder."

Introduction



Well shoot! It looks like your tractor's broken. It's served you well, but it really can't keep up with modern farm equipment anyway. It looks like you'll just have to get something new... Say, what's that in your neighbor's barn?



Wait, that's farm equipment?? That looks expensive... you'll need to plow a lot of fields if you're ever going to pay that off! Better get to work...

How to Play

In Farm Equipment Simulator 2021, you control a rocket. Your task is to plow the field to score points. You have a limited supply of fuel, which you can keep track of using the fuel gauge on the left side of the screen. You can control the rocket's rotation and throttle.

To plow the field with the rocket's exhaust, try to stay close to the ground.

To avoid running out of fuel, hit cows that appear on the field. Their methane will keep your rocket running longer!

Make sure to avoid the broken tractors – crashing into them will end your flight!

Controls

Use the A and D keys on your keyboard to rotate the rocket left and right.

Use the Z key to turn the engine on or the X key to turn it off.

Press the Escape key at any time to pause the game.

Press the H key on the title screen to view a tutorial.

Important things to remember

- *As you use more fuel, your rocket gets lighter. Because of this, the same throttle setting will accelerate the rocket faster.*
- *At the beginning of the game, the rocket is rather slow with full propellant, but it will speed up significantly as you use your fuel.*
- *MATLAB® may not register multiple keys at once, so for best results press one key and then another.*
- *Always close the game window before restarting the program through MATLAB®'s editor window. If the game window is not restarted, it may lead to objects remaining on screen or other unintended behavior.*
- *It may take a few flights to get the hang of controlling the rocket! Keep trying!*

Credits

Adam Rike – Scoring system, game tuning, and website management

Jonah Robles – Sprites and backgrounds

Ranga Rutiser Sundar – Physics, user inputs, and menu designs

Thanks to

*Steve McClure (2021). SpriteKit Framework
(<https://www.mathworks.com/matlabcentral/fileexchange/46643-spritekit-framework>), MATLAB Central File Exchange. Retrieved December 2, 2021.*