

Water & Environment Farm Assessment and Risk Management

WE FARM

User Manual



NORTHWEST CROPS & SOILS PROGRAM



THE UNIVERSITY OF VERMONT
EXTENSION

Developed by:

Game Theory, Co.

University of Vermont Extension, Northwest Crops and Soils Program

Table of Contents

Introduction	1
System Requirements	2
Personal Computer (PC)	
Smartphone [Android via Virtual Reality (VR)]	
Install Instructions	3
PC Installation	
Android Installation	
Setting Up the Google Cardboard Goggles for VR	
How to Play	9
Troubleshooting Common Issues	10
Technical Support	11
Credits	12
Notes	13

Introduction

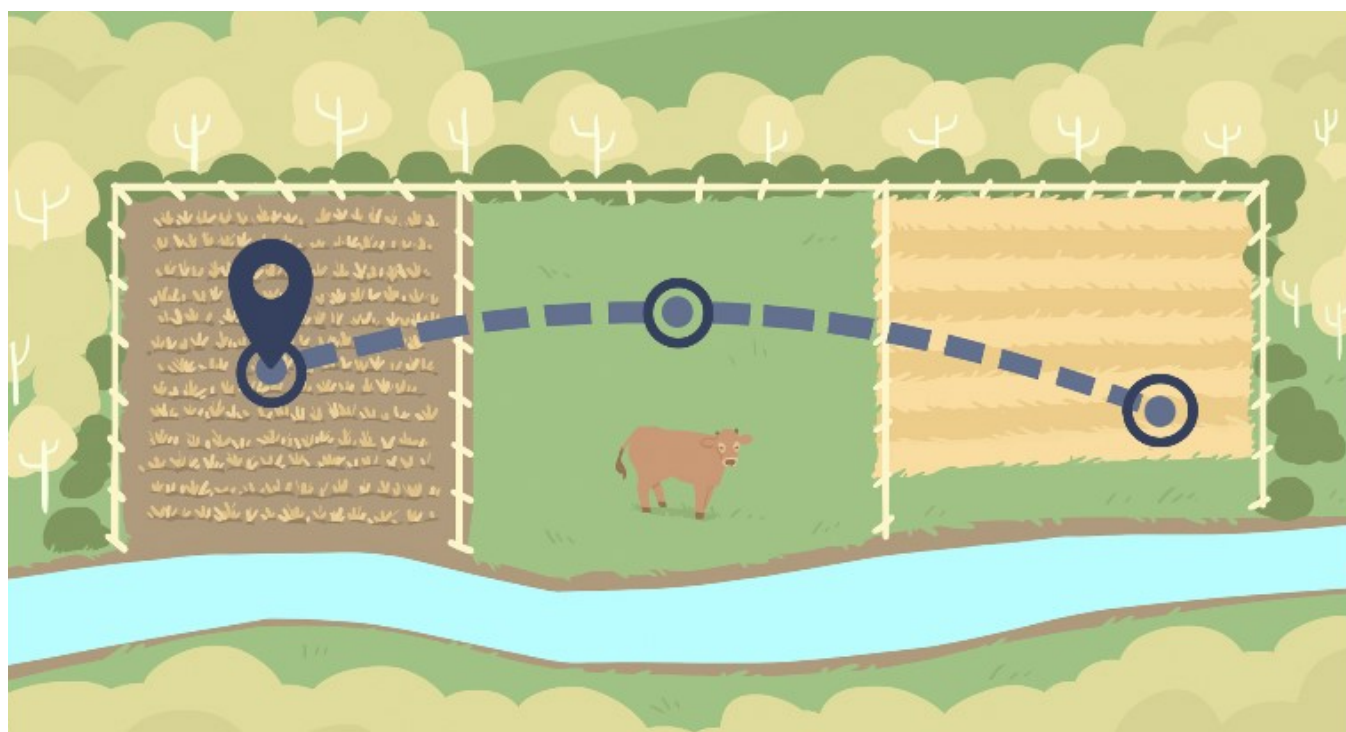
Water & Environment Farm Assessment and Risk Management (referred to as '**WE FARM**') transports players to a virtual farm where their goals are to identify potential environmental risks and choose the management practice they believe will best mitigate potential issues. Players can see how their decisions impact the land, water, and crops. This tool is a unique platform for players to identify on-farm issues without actually seeing them in real life, better preparing them for their future farming endeavors.

On-Farm Environments Include:

Corn Field

Pasture

Hay Field



System Requirements

WE FARM was built using a cross-platform design, meaning it can be accessed through a computer, or with a smartphone via virtual reality.

Personal Computer (PC)

To run the game on a computer, you will need a Windows operating system on your computer or laptop. Before you download the application, make sure your operating system is up to date.

Android Smartphone

This game is designed to play on Android devices. To run the game via virtual reality (VR), make sure your operating system is up to date.

Most phone-based virtual reality headsets are compatible with the Android build, including Google Cardboard.



Picture above: <https://www.theverge.com/2015/4/16/8431303/google-works-with-cardboard-announced-virtual-reality>

Google Cardboard also requires **lenses** for the smartphone to be placed in for VR. We recommend choosing an option that has both a head strap and a hole for side button controls.

Below are two links to sites offering goggles:

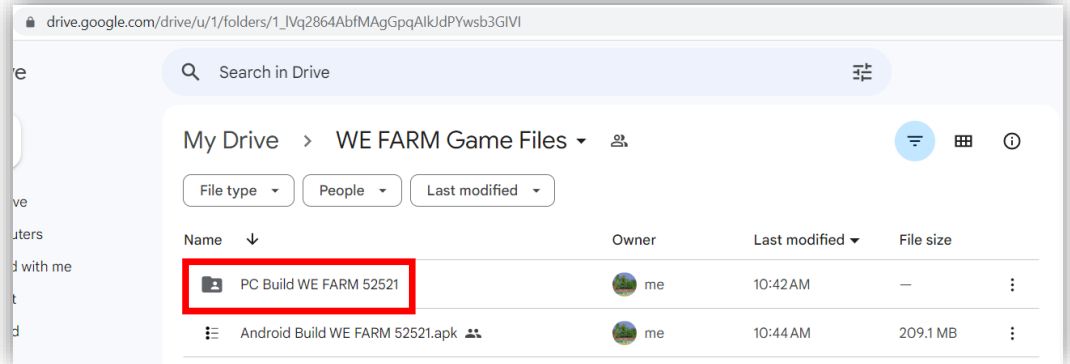
- ⇒ <https://arvr.google.com/cardboard/get-cardboard/>
- ⇒ <https://www.amazon.com/s?k=virtual+reality+goggles+for+android>

Install Instructions

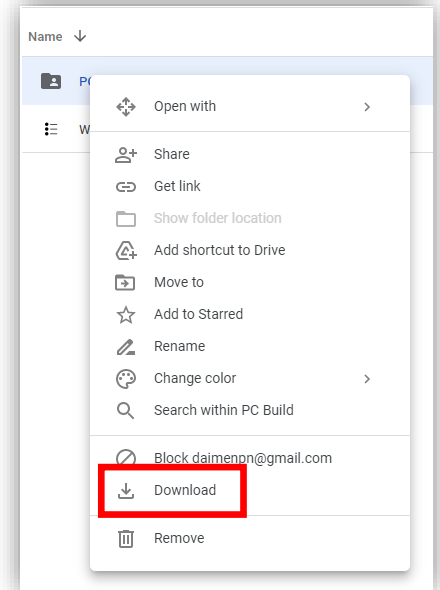
Computer (PC) Installation:

1. On your computer, navigate to the following link: https://drive.google.com/drive/u/1/folders/1_IVq2864AbfMAgGpqAlkJdPYwsb3GIVl

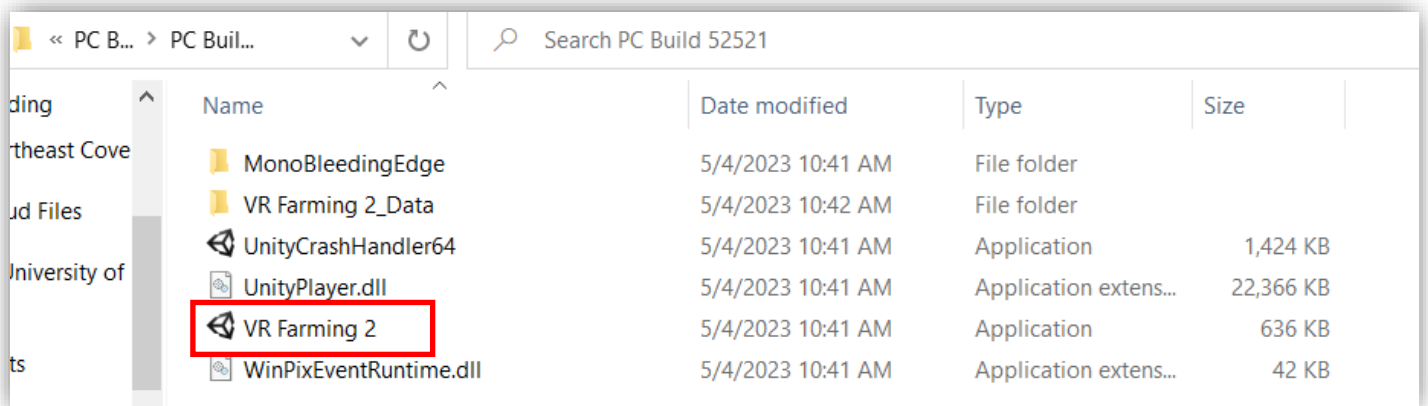
2. Right click or select 3 dots next to the **PC Build** file.



3. Select **Download**.

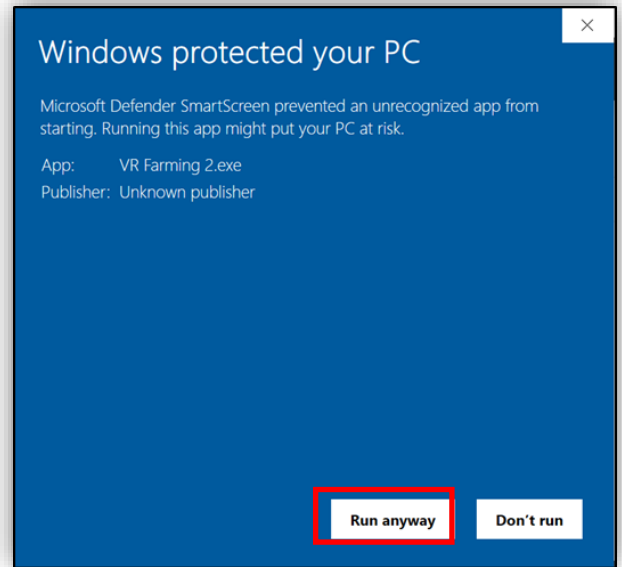
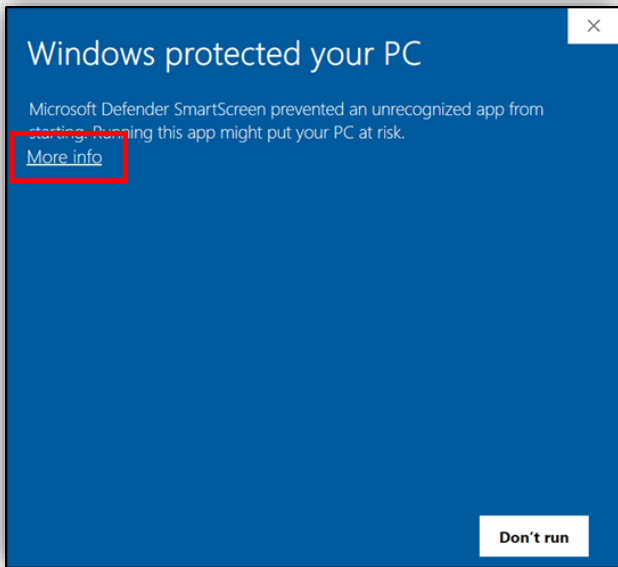


4. The program will be in your **Downloads** folder.
5. Once downloaded, extract all files to the folder of your choice and select the new **PC Build** folder.
6. Double click the application file **VR Farming 2** to open the application.

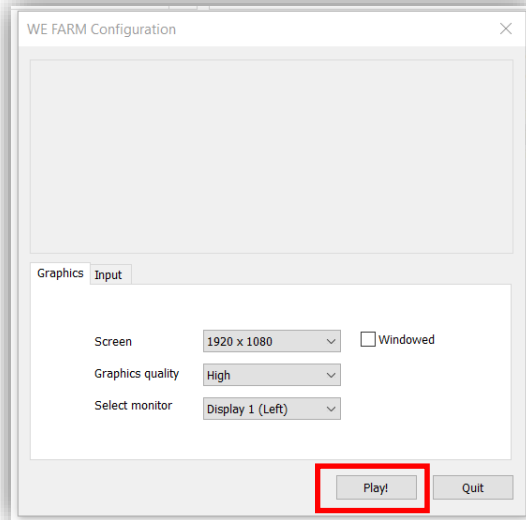


Install Instructions

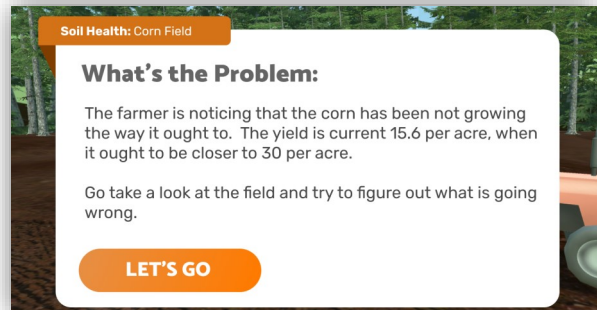
7. A blue pop-up appears indicating that WEFARM is an unrecognized app. Click **More info** to access the run option. Then click **Run anyway**.



8. The WE FARM Configuration pop up will appear. Select **Play!**



9. You're in!



Install Instructions

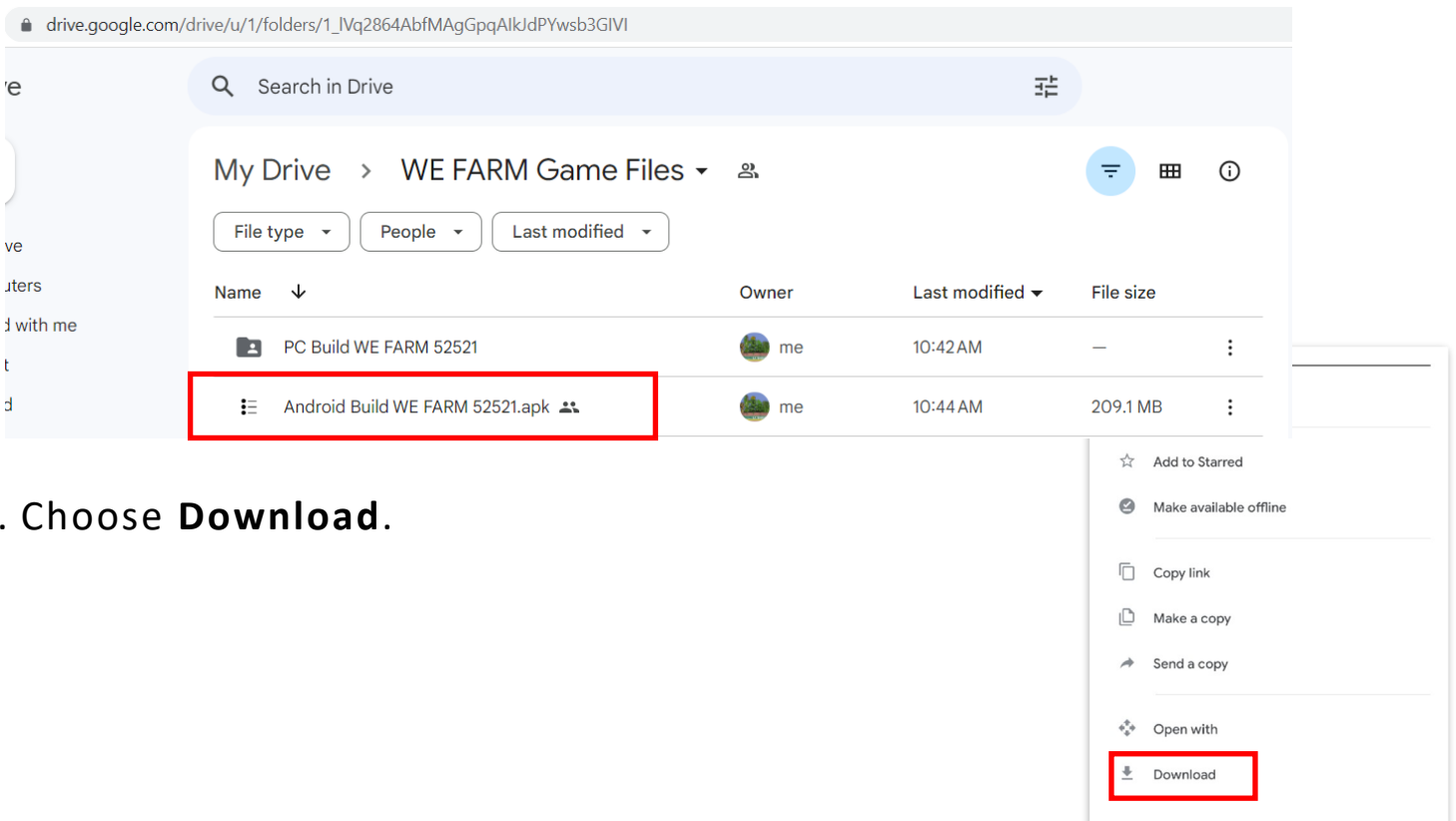
Android Smartphone Installation for VR:

Before you begin... Check that you're able to install apps from your browser on your device by going to your settings. On non-Samsung phones go to **Security & privacy** and click **More settings**. Then tap on **Install apps from external sources**.

On Samsung phones go to your phone's settings. Then go to **Biometrics and security** and click **Install unknown apps**. Select the browser (e.g., Chrome or Firefox) you want to download the file from. Toggle **Allow app installs** ON.

1. On your phone, navigate to the following link: https://drive.google.com/drive/u/1/folders/1_IVq2864AbfMAGGpqAlkJdPYwsb3GIVI

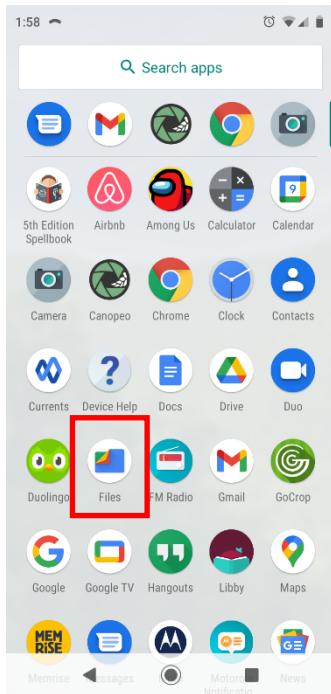
2. Tap the three dots next to **Android Build WE FARM 52521.apk**.



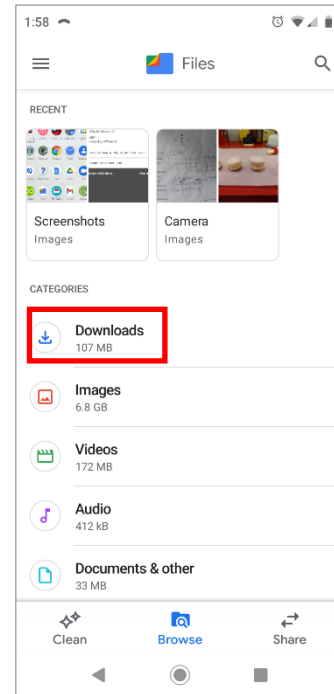
3. Choose **Download**.

Install Instructions

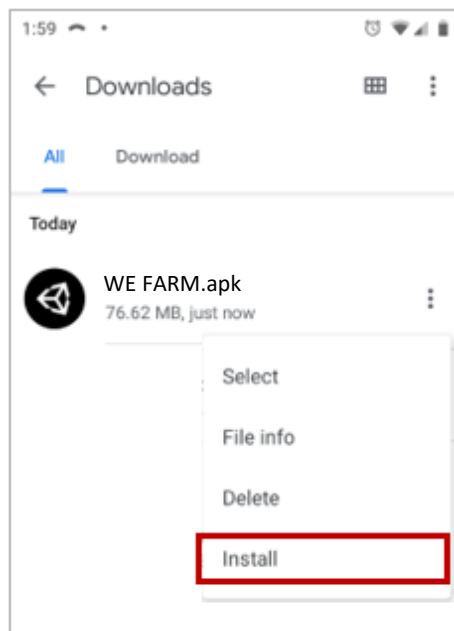
4. Open *Files*.



5. Open *Downloads*.

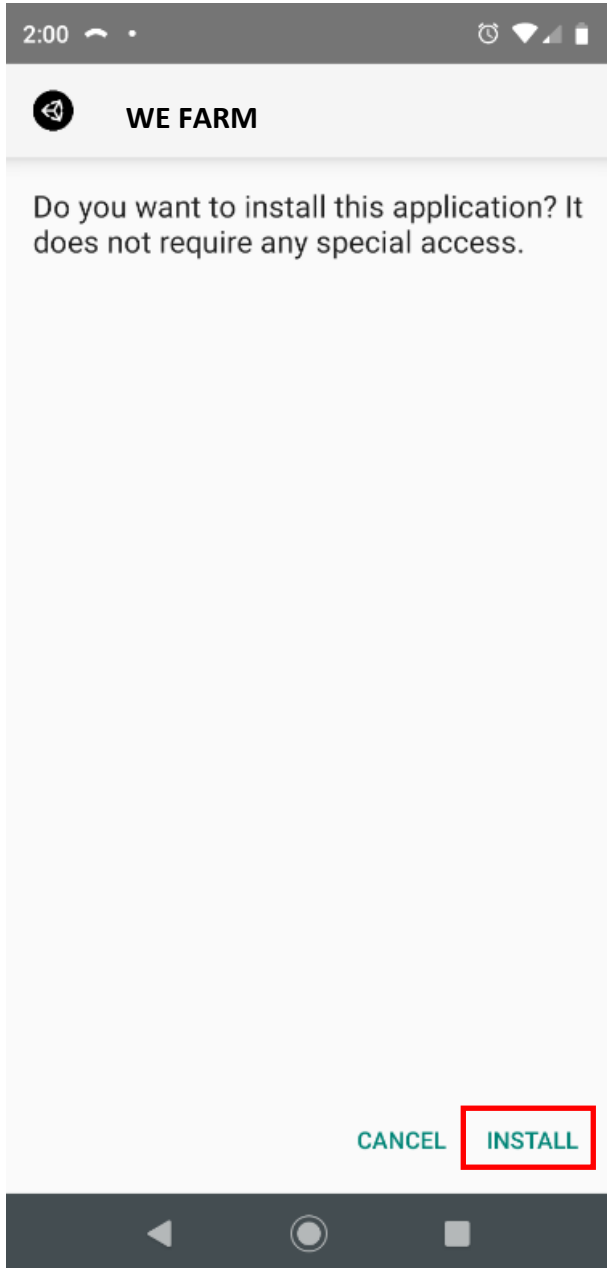


6. Tap the three dots next to *Android Build WE FARM 52521.apk*. Choose **Install**.

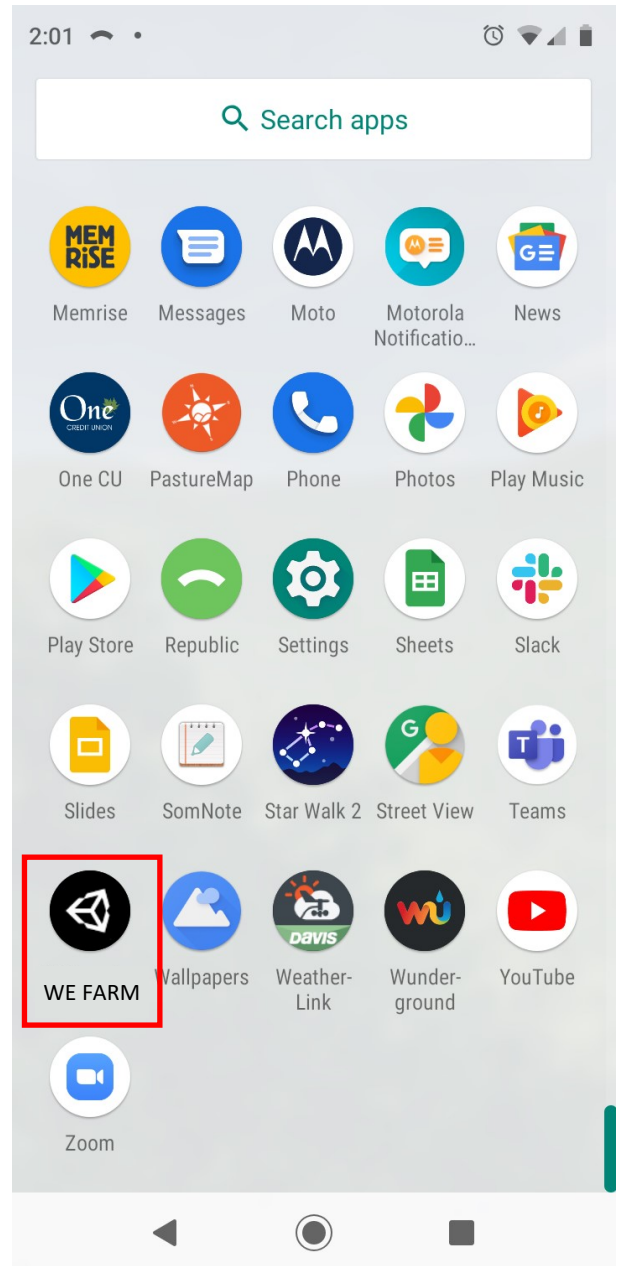


Install Instructions

7. Tap **Install**.



8. Go to your apps page and tap the **VR Farming 2** or **WE FARM** to open the game.



Install Instructions

Setting Up the Headset:

The game starts outside of the headset so that you can read the in game setup instructions. After the tutorial, you can place your phone in the headset to experience the game in VR.

1. Loosen the strap on the headset.
2. Press the button on top of the view to open up the phone container. This is a slot where you can place your phone.
3. Place your phone on the inner shelf, with your phone screen facing towards you (towards the strap). Nothing should be touching your phone screen at this point, make sure that your screen isn't pushed against anything, or else it may interfere with the game.
4. Center the phone on the shelf so that it doesn't look crooked or offset.
5. Gently close your phone into the goggles.
6. Place the headset on your head and tighten the strap until it's comfortable and feels secure. Use the buttons on the bottom of the headset to adjust the focus of the viewer until it looks clear to you.



How to Play

Computer (PC) Controls:

- Move the mouse to look around.
- To move around, hover your mouse over the orange markers across the map. Aim at the marker until the timer fills up, and you'll be taken to your clipboard with information about a measurement you took from the field.
- When making a decision in the game, or selecting a button, hover over the option you want using your mouse until the bar loads and the choice is selected.

Android Smartphone VR Controls:

- To move around, turn your head to look at the orange markers across the map. Stare and aim at the marker until the timer fills up, you'll be taken to your clipboard with information about a measurement you took from the field.
- When making a decision in the game, or selecting a button, Stare directly at the choice you want until the bar loads and the choice is selected.

Troubleshooting Common Issues

My game downloaded but it won't open to let me play it?

Check your security settings and make sure the app is allowed through, and that apps from the internet can be installed on your device.

My VR headset look blurry?

Use a dry tissue to clean off the glass inside the lenses. Make sure the strap is tight enough, and that you've used the sliders on the headset to adjust the focus. If you need glasses, loosen the strap and carefully fit the VR headset over your glasses.

My game keeps resetting when I put it in the headset.

This happens when something is pressed against the screen. Restart the game, and put it back in your headset while making sure nothing comes in contact with the screen.

Something went wrong with the game and I'm stuck.

Completely exit the game and close the application. Restart the game and try again. If you're still stuck, uninstall the game and start with a fresh download.

I can't get the game to download.

Check for updates on your device and make sure you're on the most up to date version of your phone or computer's operating system. If that doesn't work, try downloading the game using a different browser.

Technical Support

Contact UVM Extension Northwest Crops and Soils:

Phone: 802-524-6501

Physical Address:

UVM Extension Northwest Crops and Soils Program
278 South Main Street, Suite 2
St. Albans, VT 05478-1866

Email Address: cropsoil@uvm.edu

Website: www.uvm.edu/extension/nwcrops



Credits

WE FARM was developed in collaboration between [Game Theory, Co.](#) and the [University of Vermont Extension Northwest Crops and Soils Program](#), with input from the [Vermont Agriculture Teachers Association](#) and [Cold Hollow Career Center](#).



This work is supported by the United States Environmental Protection Agency (EPA), [Environmental Education \(EE\) Grants](#), Local Grant Program for Region 1. Project number: NE-00A00485-0. Project title: From Virtual to Reality: Innovative Environmental Education for Future Farmers.



