



## **2021 Northwood STEAM Showcase Winner's Interview**

**Meera (4th Grade)**

**Project: Soil Erosion Detector**

Meera is Northwood Elementary 4th Grade, Mrs. Sundaram's Class student who was selected as the Grade Level Top Winner among 61 excellent projects this year.

In her free time she usually plays outside with her friends, but if she stays at home, she does some crafts and origami. Mostly she explores with the things which she has at home to create something new.

**What is your project and how long did it take to complete the project?**

My project, Soil Erosion Detector is an alarm which detects soil erosion. When a little bit of soil erodes in the place where the detector is installed, the system will connect and will send an electronic signal to the alert unit (buzzer and red LED). To complete this project it took me one week and to create the video it took me about 1-2 weeks.

**What do you want to achieve in the real world with your project?**

In the real world many people are suffering and some have lost their lives due to soil erosion, so I have created a detector which will help people be alarmed when soil erosion occurs. For example if there was soil erosion happening in my community it might start a landslide or any type of problem which is unpredictable! So if we place SED (Soil Erosion Detector) in places where there is a chance of soil erosion, it will send an alert immediately. So that the government can alert the people to get ready to evacuate or to just tell them to stay indoors. My invention also alarms car drivers to stay safe on mountain side roads; this informs the police to come and redirect car drivers into safer roads. In addition, we can also place SED near dam walls because if it overflows or breaks in the night, people would get an alarm and will start to evacuate safely.

**What is your next project plan?**

My next project plan is to add a GPS tracker, so that we know where the soil erosion is happening and we can save people in that area. It can also be used to find if my detector has been damaged. Along with the GPS tracker, I also want to add a digital weight calculator, so I know the exact weight of the soil eroded and when it comes to a certain number it should give an alert.

## **Do you have any suggestions for students on how to be successful in the STEAM project?**

I suggest my peers get ideas from their daily life items and try to use that in their project to find an innovative solution. Most importantly, I recommend them to give their full involvement and understanding of their project concept, so that they will be capable of gathering more knowledge in their research.

*Here is her project “Soil Erosion Detector” Link.*

<https://drive.google.com/file/d/1WHN9TkfLuco7RZz45Rctcx37SGsyNQpj/view?usp=sharing>