**TinkerCad Workshop** 

### About NoireSTEMinist, LLC

Established in July 2021, NoireSTEMinist, LLC has a mission to diversify STEM so that it reflects the diversity of the world. The goal is to use robotics and electronics to bring more people to STEM and bring STEM to more people. The mission is to connect to diverse communities through workshops, seminars, social media, print media, and speaking engagements.

#### About The Facilitator

Dr. Carlotta A. Berry is a professor of electrical engineering and robotics at Rose-Hulman Institute of Technology. She has been teaching and mentoring children and adults since 1999. She is a fellow of the American Society of Engineering Education fellow and has received numerous awards for her engineering education, diversity, and outreach work. Her spiritual gift is teaching. She has a unique ability to connect with people of all ages and break down technical concepts into easily understandable lessons. She is an advocate for active and hands on learning.

# About The Workshop

# Description

In this two-hour workshop, participants will learn how to build, program and simulate electronic circuits on <u>TinkerCad</u>. Electrical concepts may include voltage, current, power, and resistance. Electronic devices may include resistors LEDs, LCDs, motors, buttons photoresistors, temperature sensors, sonar, switches, and buzzer. Programming concepts may include digital and analog inputs and outputs, functions, classes, pulse width modulation, libraries, arrays, for loops and if conditions. Coding may be completed using graphical based coding or Arduino Sketch.

## Age Requirements

This workshop is appropriate for ages 11 years and older. Adults are encouraged to also attend.

# Supplies

The participants are not required to purchase any supplies. Participants must have access to a computer with internet access. Participants will build circuits, write code and simulate in the

carlotta@noiresteminist.com

615-243-4176

Motto: My STEM Is For The Streets

free online platform, TinkerCad. There is no pre-requisite or pre-work required for this workshop.

#### **Space Requirements**

- The ideal room for the workshop would be a computer lab or a cafeteria style room where each student or pair of students has a laptop computer on the table with the kit.
- Each computer will need internet access and a functional USB port for coding online and connecting to the robot
- Plenty of floor space for running and testing out the robot.

### Workshop/Seminar Cost

- The cost for a **one-hour virtual** workshop is \$1500 for up to 20 participants.
- The cost for a **two-hour virtual** workshop is \$3000 for up to 20 participants.
- The cost for a **one-hour in person** workshops is \$2500 for up to 20 participants.
- The cost for a **two-hour in person** workshops is \$5000 for up to 20 participants.
- The client is required to pay all travel expenses for the facilitator.
- All in person or virtual workshops for more than 20 participants require a teaching assistant and additional facilitator fees. The client is required to provide the teaching assistant. If the facilitator is required to train the teaching assistant, the rate will be \$150 per hour.

#### Consultations

There is one one-hour consultation meeting included for organizing and planning a workshop or seminar series. Each subsequent meeting will be billed at a cost of \$150 per hour.

# Payments, Cancellation and Refund Policy

Half of the facilitator fee will be <u>ninety (90) days</u> before the scheduled appointment. The remaining facilitator fee will be due sixty (60) days before the initial workshop session.

There will be a 100% refund for cancellations sixty (60) days or more than the scheduled appointment. If the cancellation is within sixty (60) days of the scheduled appointment, there will be a cancellation fee charged at 50% of the workshop price. Once the workshop/seminar has begun, any cancellations will forfeit 100% of the facilitator fee.