

Heated Bridges

**Breadboard Demo**

Semester: SP25

Team No. 52

Reviewer: FLIFLET

Demo should include a circuit with a microprocessor on a devboard or PCB that is connected to a project subsystem. The microprocessor should have a downloaded program in its memory. The program should control the subsystem or receive data from it. The data should be displayed on a pc or other display. The project team should be able to describe the circuit and justify design choices. They should be able to explain how the circuit fits in to the project.

Full Credit: The circuit works and is of adequate complexity. A good explanation its features is given by team.

Point Reductions

Circuit fails to work:	-2
Circuit lacks complexity:	-2
Circuit seems inappropriate for project:	-2
Explanation lacks clarity:	-2
No circuit	-10
No show	-20

Breadboard Demo Grade:

20

# 12-lead Bridge

## Breadboard Demo Checklist

Project No. 52

### Microprocessor

ATMega	
STM32	
ESP32	✓
Other	
Dev board	✓
PCB	

### Comm. Protocol

I2C	
SPI	
UART	
Wireless	1-wire protocol
433/900 MHz	
Bluetooth	
Wi-fi	

Temp sensor

### Power Subsystem

#### Source

Lab PS	
Battery	
Comm. DC PS	
110 VAC/Variac	

#### Regulator

Linear	
Switching	
Voltages	
Currents	

### Subsystem 1

### Subsystem 2

Function	Subsystem 1	Subsystem 2
Motor	rain sensor	
Actuator		
Light or sound source		
LED		
Speaker		
Sensor	✓	
IR		
lidar		
radar		
Ultrasonic		
Comments	✓	
rain sensor		
temperature	✓	