Mouse Trap Car Timing System:

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**How to Use:**

1. Ensure power is supplied to the Arduino via USB cable (the “START!” screen should be shown)
2. Ensure speaker is plugged in via USB if internal speaker battery is low and speaker is turned on
3. If system initializes correctly, speaker will beep upon power-up and LED strip will begin the waiting animation (white singular LED chasing up the strip)
4. Position cars on track
5. When teams are ready, press and hold “START”. The LED strip will play the yellow startup animation, and then there is a one second delay between the completion of the yellow startup animation and the countdown beginning.
6. The LED strip will light up ⅓, ⅔ and then full yellow, for 3, 2, 1, and then green for GO.
7. The strip will turn blue once all scores have successfully been recorded.
8. Press RESET to set the track up for the next race.
9. ***During any clocking period, press “CLOCKING” to reset the track if there is a false start or misfire.***

PINOUTS:

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| **Arduino MEGA**  20 - SDA  21 - SCL  Digital GND  Digital 5V  45  44  43  42  Any available GND  35 | **LED Strip**  White solid core wire, Green LED strip wire  Yellow solid core wire  Black solid core wire  Red solid core wire  **Track Key Switches**  Track 1  Track 2  Track 3  Track 4  **Speaker**  Speaker / Potentiometer GND  Speaker Data Wire (should go into potentiometer)  Speaker |