

**Rover Camera Mount Assembly**  
**Jackson State University MARRS STEM Workshop**  
**February 27, 2021**

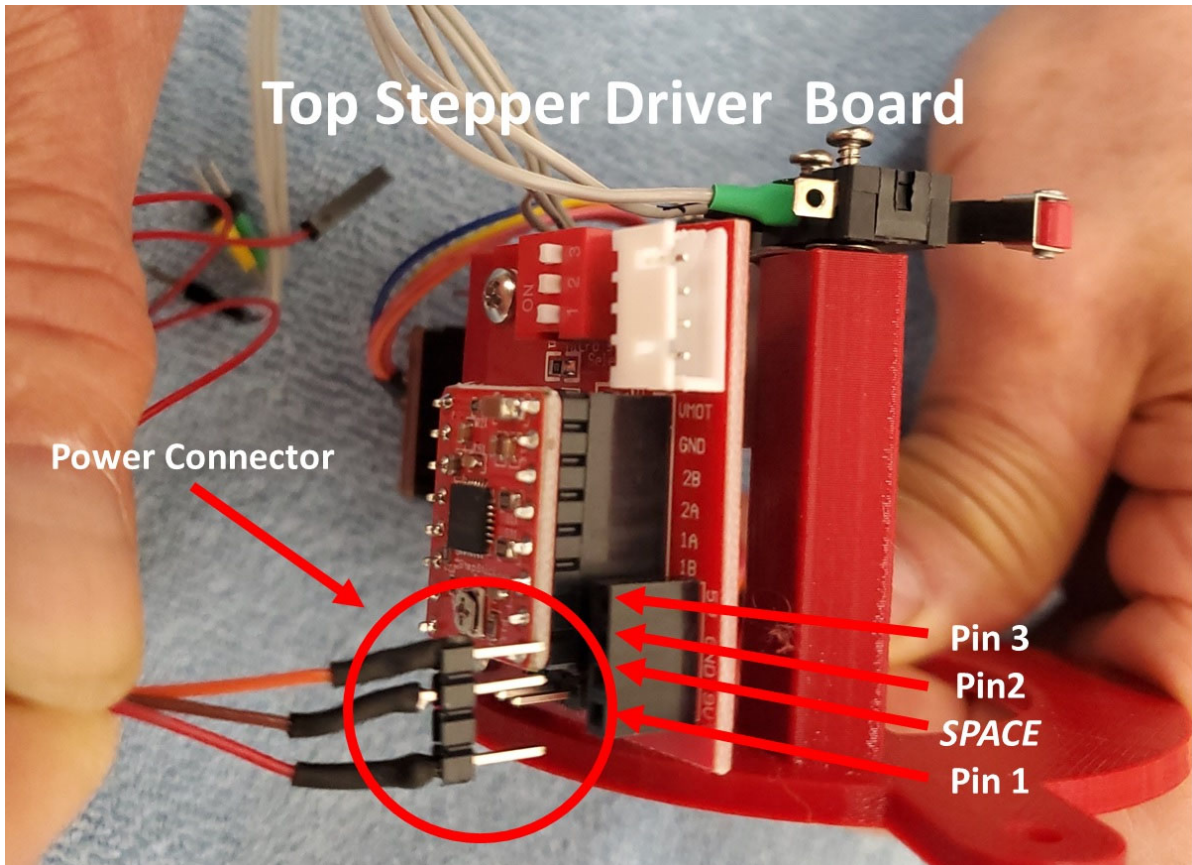
**Objective:** Complete the Camera Mount assembly and process successfully.

**Tools and materials:** Needle nose pliers, Phillip's screwdriver, camera parts kit.

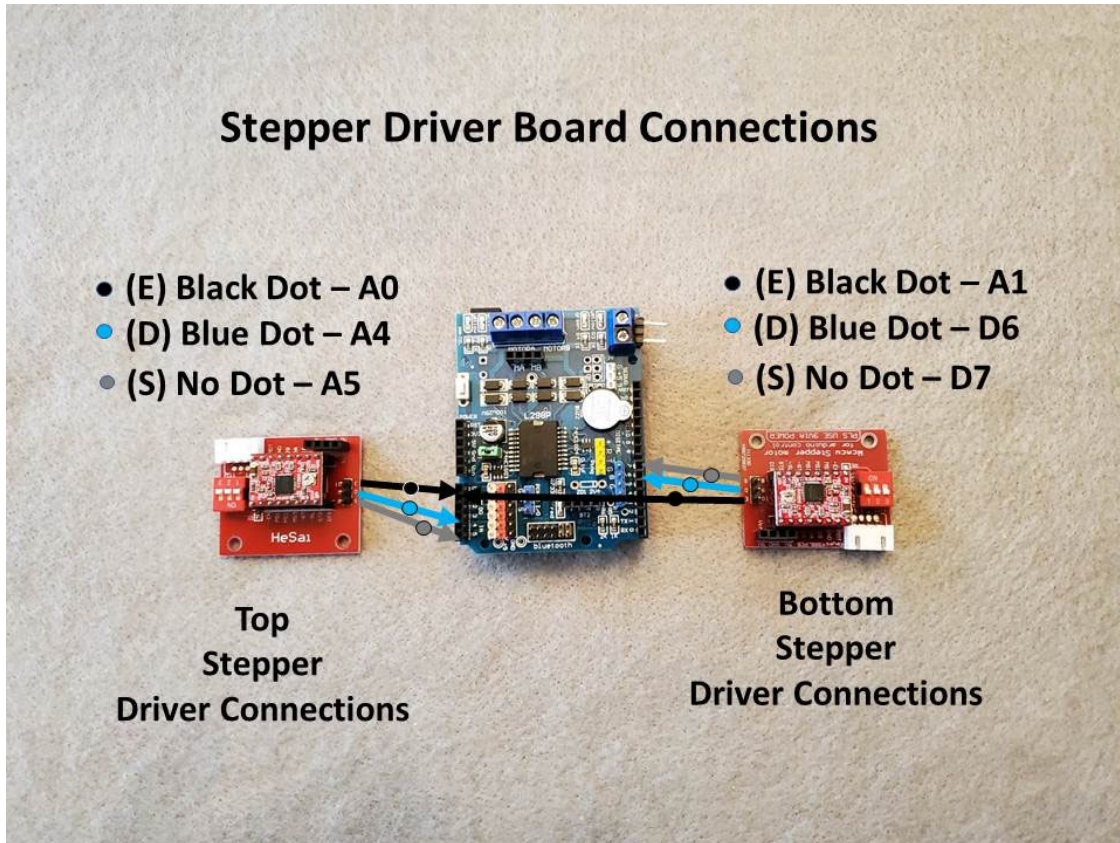
### 9. Top Steppers Interface Connections

(1) The top stepper motor wires are oriented downward. The **RED** lead goes to **Pin#1**, **Brown** lead goes to **Pin#2**, & the **Orange** lead goes to **Pin#3**.

**Note:** A stepper motor is a special type of motor that moves in steps rather than freely rotating. The number of steps can be controlled using electrical control circuits.



(2) Top Stepper interface on header pin connections with labeled as **S, D, E** to **NO Dot, Blue Dot, & Black Dot** wires. The following photo shows the identification and placement of the interface between two Stepper Control Boards and Rover Motor Control Board:



(3) The photo below illustrates the wire connections to the Top Stepper Motor Control board.

**Note:** The markings are the wires –“NO dot,” “Blue dot,” and “Black dot.” The “Black dot” is connected to the pin labeled “E” (Enable) pin.

