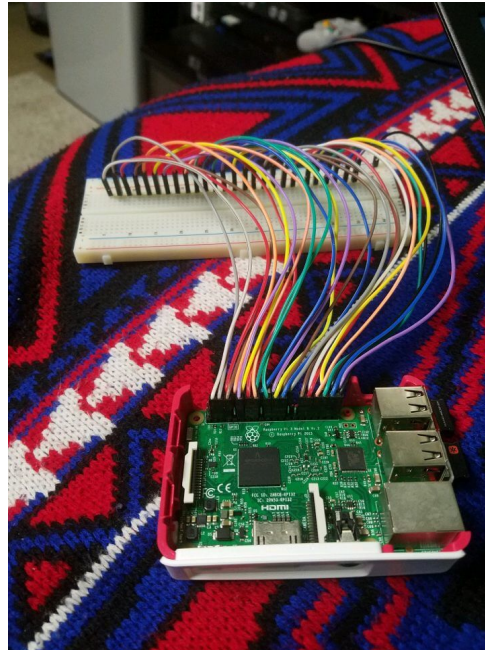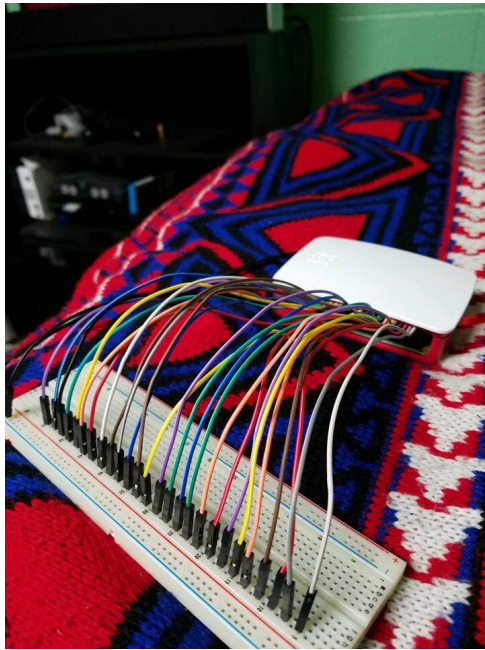Names: Brady Anderson, Zach Brasseaux, Samantha Santiago

Date: 5/10/2017

Cyber Storm Project: Constellation Crack

Constellation Crack is a cipher puzzle where the solution is a constellation. When the program is started up, a random encryption is given. The team must then solve for the clue using the hints provided and whatever knowledge of constellations they've got. The physical components include the Raspberry Pi 3, 27 jumper wires, a breadboard, an HDMI cable, and a monitor. Aside from one ground wire, each of the wires represents a letter in the code; when grounded, it signals an 'on' state for that letter. When enough letters are on, and it matches the set created for the word, the puzzle is decrypted and the hidden message is displayed.

This project should be included in Cyber Storm 2017 because it's intuitive. It's a concept that most people should grasp within the time provided. The time limit induces competitiveness; the group that can solve their puzzle the quickest gets the most points. In addition, limiting the time each group gets to solve keeps everything moving and encourages them to use problem-solving skills, rather than brute-forcing their way through and getting lucky. Finally, this puzzle uses a basic concept of cyber security: encryption using a cipher. Difficulty can be adjusted per group; a group in the lead can come in and find their wires scrambled and out of order, while another group dragging behind can expect to find everything in order. Overall, this puzzle would be a fun little test for the Cyber Storm competitors.

Pictures of the hardware

TIMER HERE	PICTURE HERE
ENCRYPTION HERE	HINTS HERE

GUI mockup