The Canadian Satellite Design Challenge Management Society presents…

# The CanSat Kit for Dummies

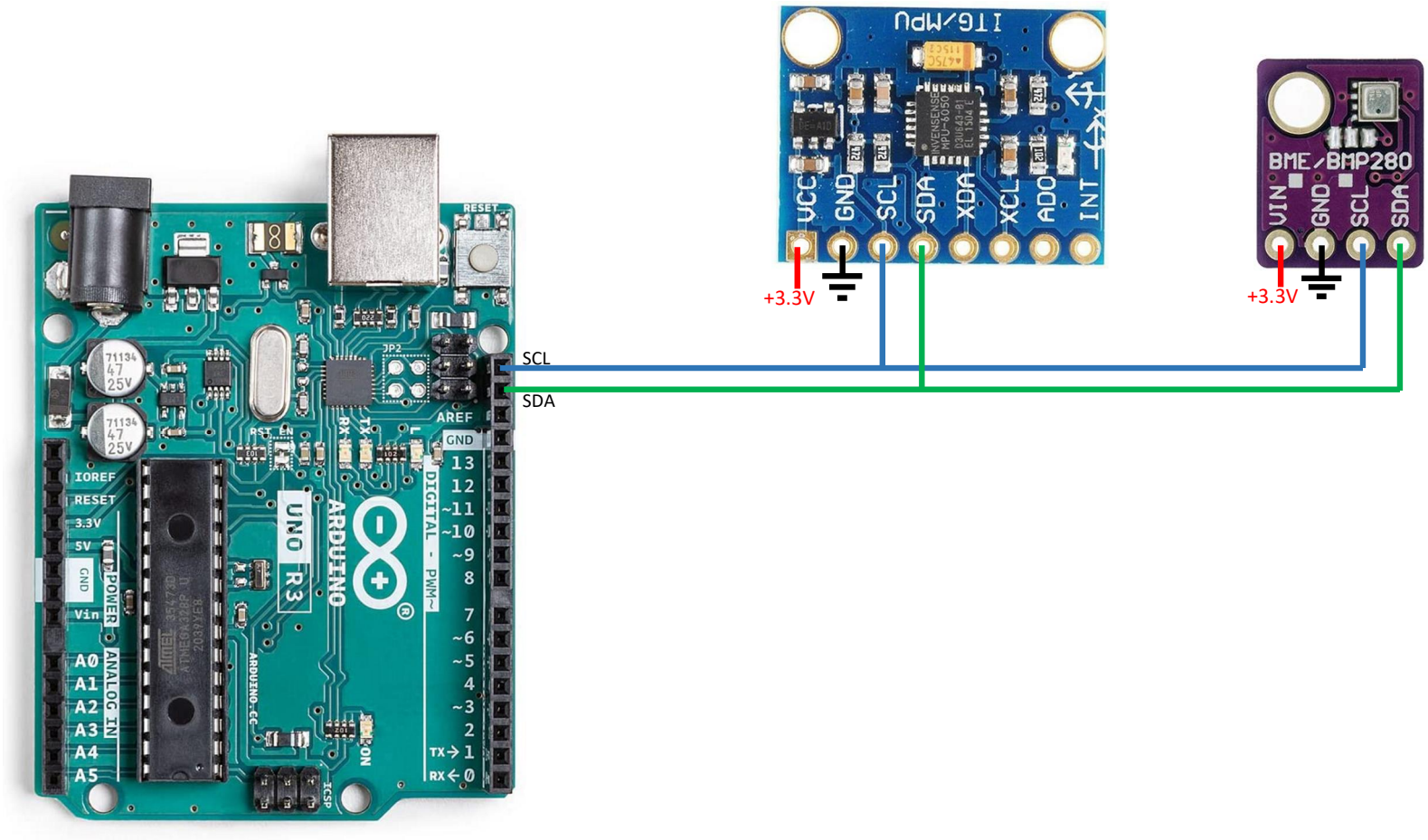
## Future Space Scientists & Engineers!

**Episode #7: Creating a "FlatSat"**

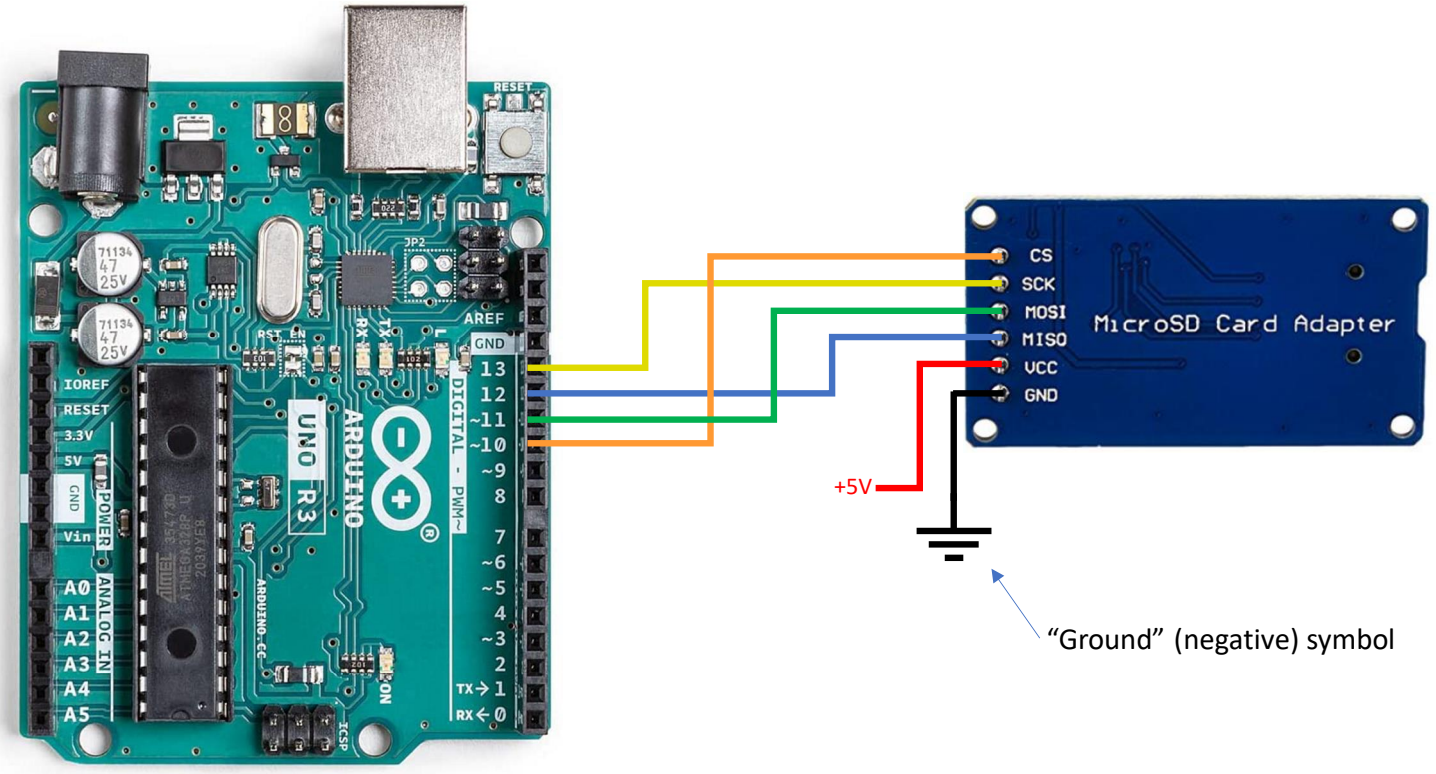
# What we

- ÅConnect the BMP-280, MPU-6050, and SD card together
- ÅModify the code to save the data to SD card (rather than just print it out to the Serial monitor)

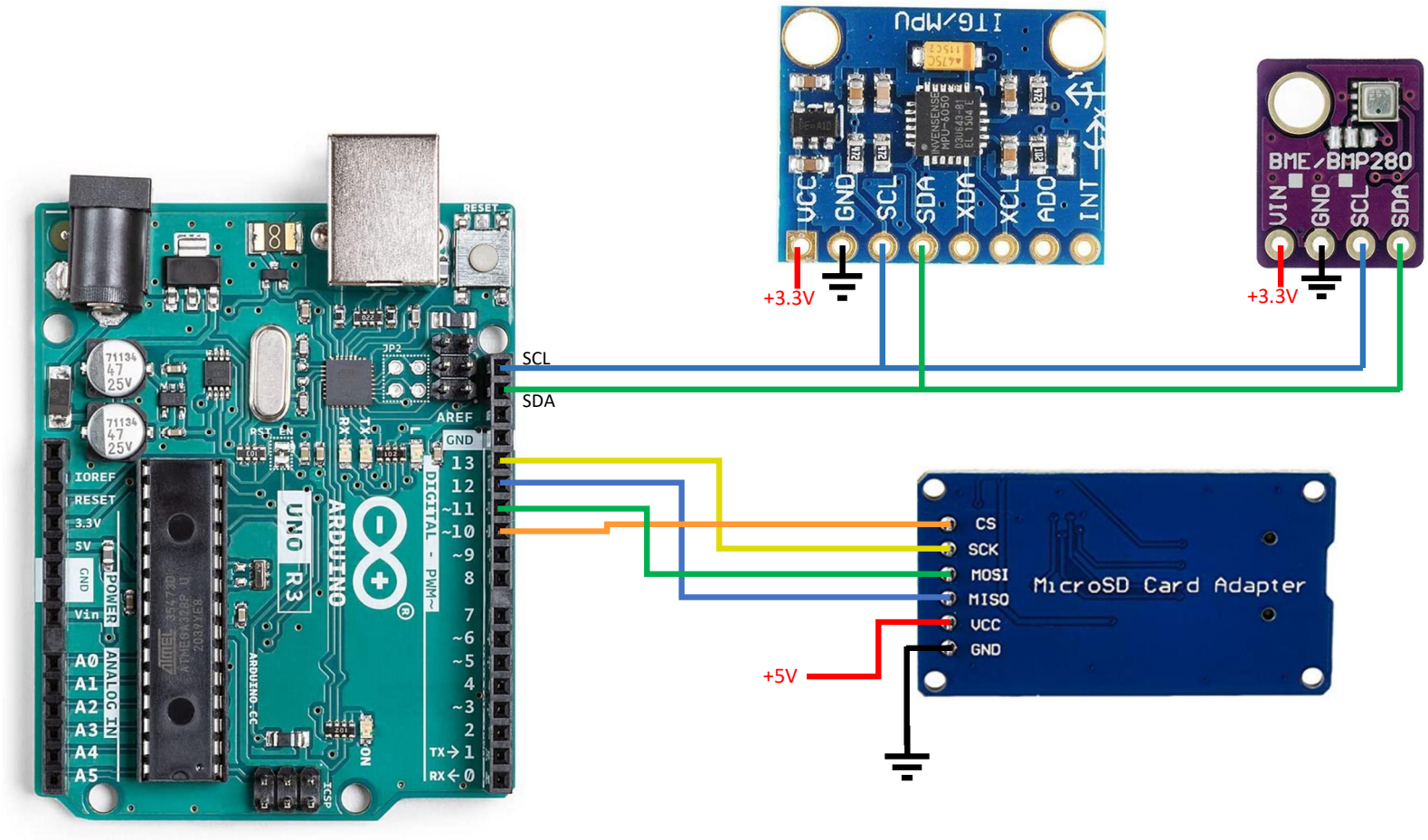
# The Combined Circuit



# The SD Card Circuit

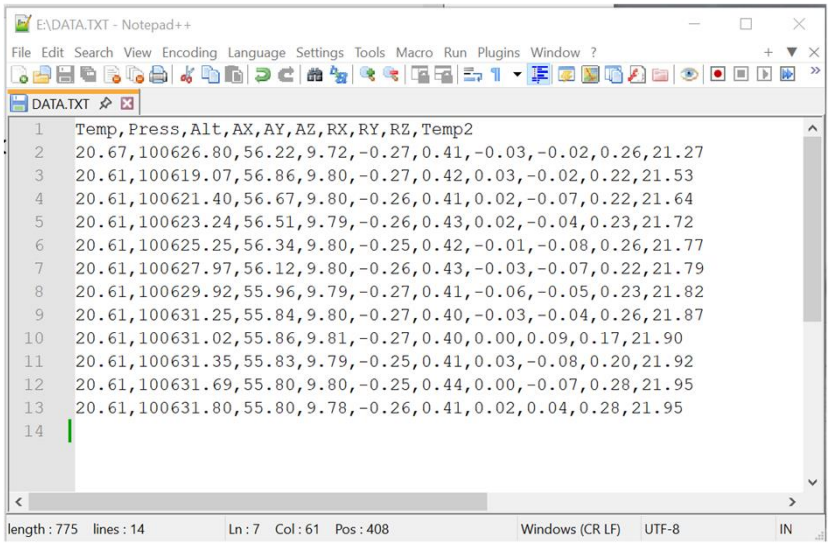


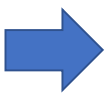
# The Combined Circuit

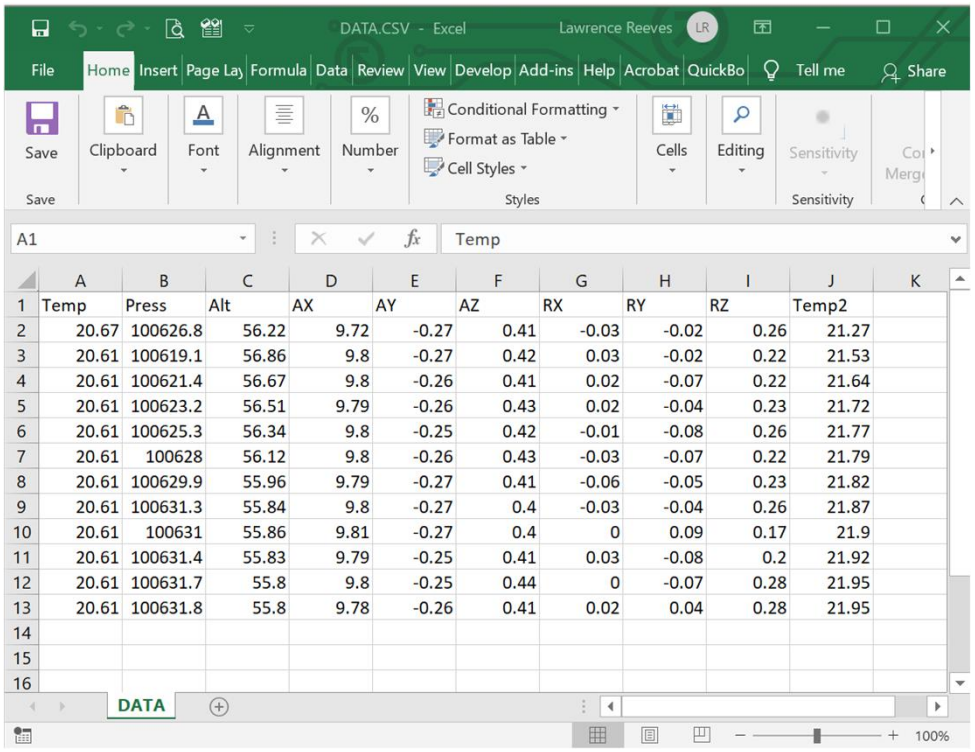


# Saving the data to the SD card

ÅWe will save the data into a Comma-Separated Variable (csv) file, so that it can easily be opened in Microsoft Excel.



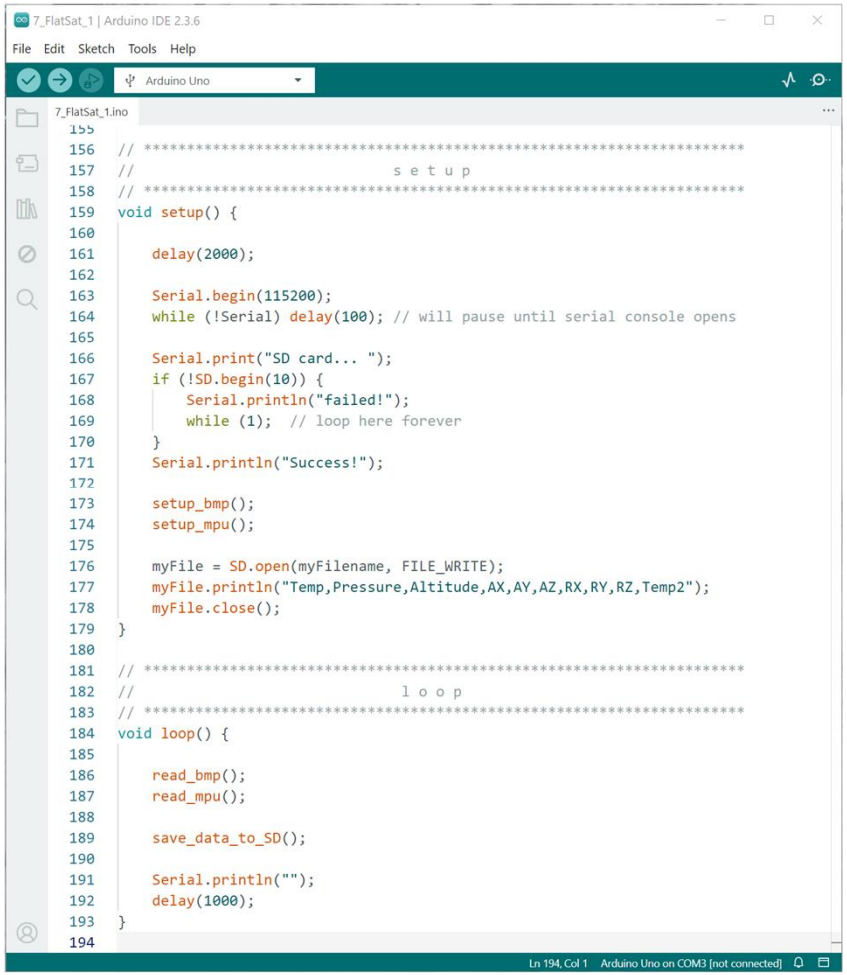






| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Temp | Press | Alt | AX | AY | AZ | RX | RY | RZ | Temp2 | |
| 2 | 20.67 | 100626.8 | 56.22 | 9.72 | -0.27 | 0.41 | -0.03 | -0.02 | 0.26 | 21.27 | |
| 3 | 20.61 | 100619.1 | 56.86 | 9.8 | -0.27 | 0.42 | 0.03 | -0.02 | 0.22 | 21.53 | |
| 4 | 20.61 | 100621.4 | 56.67 | 9.8 | -0.26 | 0.41 | 0.02 | -0.07 | 0.22 | 21.64 | |
| 5 | 20.61 | 100623.2 | 56.51 | 9.79 | -0.26 | 0.43 | 0.02 | -0.04 | 0.23 | 21.72 | |
| 6 | 20.61 | 100625.3 | 56.34 | 9.8 | -0.25 | 0.42 | -0.01 | -0.08 | 0.26 | 21.77 | |
| 7 | 20.61 | 100628 | 56.12 | 9.8 | -0.26 | 0.43 | -0.03 | -0.07 | 0.22 | 21.79 | |
| 8 | 20.61 | 100629.9 | 55.96 | 9.79 | -0.27 | 0.41 | -0.06 | -0.05 | 0.23 | 21.82 | |
| 9 | 20.61 | 100631.3 | 55.84 | 9.8 | -0.27 | 0.4 | -0.03 | -0.04 | 0.26 | 21.87 | |
| 10 | 20.61 | 100631 | 55.86 | 9.81 | -0.27 | 0.4 | 0 | 0.09 | 0.17 | 21.9 | |
| 11 | 20.61 | 100631.4 | 55.83 | 9.79 | -0.25 | 0.41 | 0.03 | -0.08 | 0.2 | 21.92 | |
| 12 | 20.61 | 100631.7 | 55.8 | 9.8 | -0.25 | 0.44 | 0 | -0.07 | 0.28 | 21.95 | |
| 13 | 20.61 | 100631.8 | 55.8 | 9.78 | -0.26 | 0.41 | 0.02 | 0.04 | 0.28 | 21.95 | |
| 14 | | | | | | | | | | | |
| 15 | | | | | | | | | | | |
| 16 | | | | | | | | | | | |

# Program structure

# Setup and Loop procedures



# Save_data_to_SD procedure