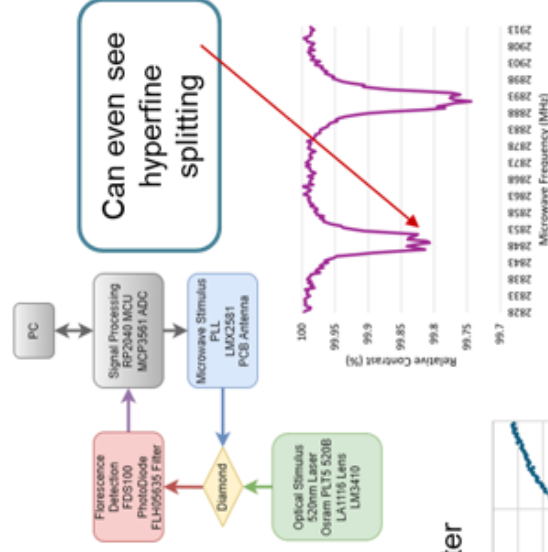
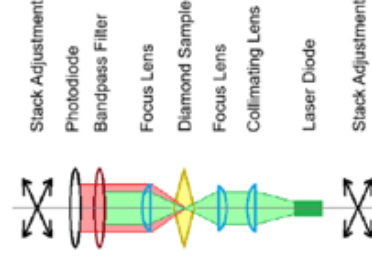
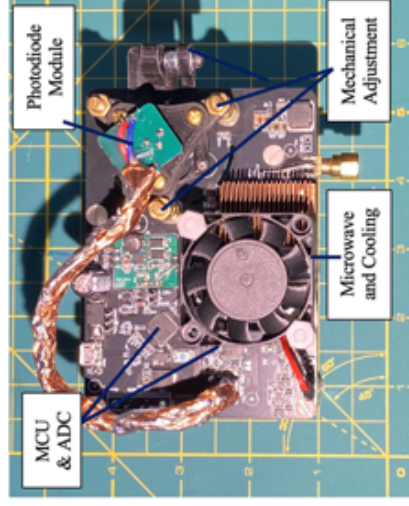
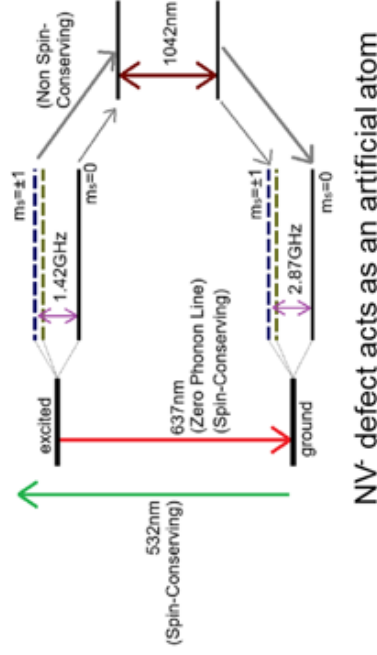


Low Cost Diamond Magnetometer for Education

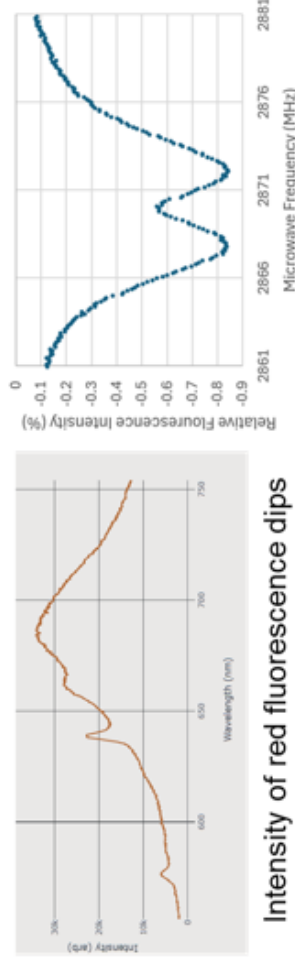
- As Quantum leaves the lab and enters the field, there is a need for hands on tools to explain quantum concepts. Current education project similar to this cost \$5K-20K.
- Only \$450 (excluding diamond), hand sized, stand alone and can be used to demonstrate:
 - Magnetometry, (2 micro-Tesla resolution)**
 - Zeeman Splitting,**
 - Hyperfine Splitting**
 - Signal Processing concepts**
 - Integrated system design**



Low Cost Hand sized Diamond Magnetometer

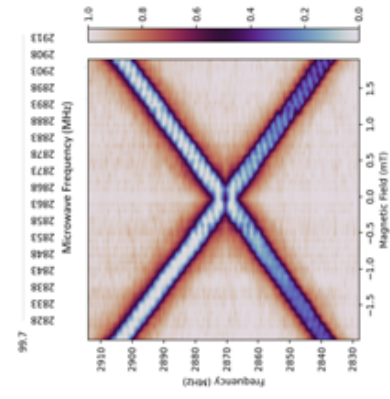


NV⁻ defect acts as an artificial atom



Intensity of red fluorescence dips when RF signal is in resonance.

Splitting between the two resonances can be used to find the magnetic field.



Zeeman Splitting with field.