Normally, infa-red (IR) cameras cost between 4,000 and 40,000 dollars. We're making a camera that uses a single sensor to take a picture – a simple project anyone could do. But, on top of it, we're adding a compressed sensing algorithm to reduce the exposure time. Our final camera is around 400 dollars. Because we're using a compressed sensing algorithm, we have to use extremely precise motors, so we're using two Phidget stepper motors that give percision down to three tenths of a degree.

All of the code can be found on my GitHub. Specifically, look in `brain.c`. Also, we're written good documentation; we hate it when other people don't write docs all the way.