1. Kinect

* Kinect sends out diffused infrared light from IR emitter
* Kinect receives infrared light reflected by targets
* Onboard laptop, running Roborealm, inputs images from Kinect
* RoboRealm applies several filters to distinguish the target rectangle
* The software then uses the rectangle’s coordinates to b
* We then output the data through serial communication to the cRio.
* Kinect, which is mounted on robot, connects to an onboard laptop
* The laptop runs Roborealm, a vision processing software given to us in the Kit of parts.

The Kinect, mounted on our robot, connects to an onboard laptop. The Kinect finds the target by sending infrared beams out and then the camera captures the image. The laptop runs Roborealm, a vision processing software. The software then searches for rectangular targets, or the pyramid goal inside the captured image. We then get the coordinates to calculate our shooter speeds and ball screw position. We then output the data calculated through serial communication to the cRio.