

————— Analog Signal

..... Digital Signal

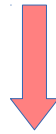
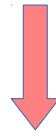
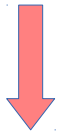
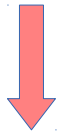
Sensor: Emitter Side

IR Emitting Diode 1

IR Emitting Diode 2

IR Emitting Diode 3

IR Emitting Diode 4



IR Light

Photodiode 1

Photodiode 2

Photodiode 3

Photodiode 4

Gripper Motor Controller Board

Xilinx FPGA

PicoBlaze
Soft Processor

SPI Host

EtherCAT Slave
(ET1100 ASIC)

SPI Slave

ADC

Amp

Switch

Microcontroller
(ATmega168)

Sensor: Receiver Side

EtherCAT Host
(Software-controlled)

Applications

ROS (Robot Operating System)