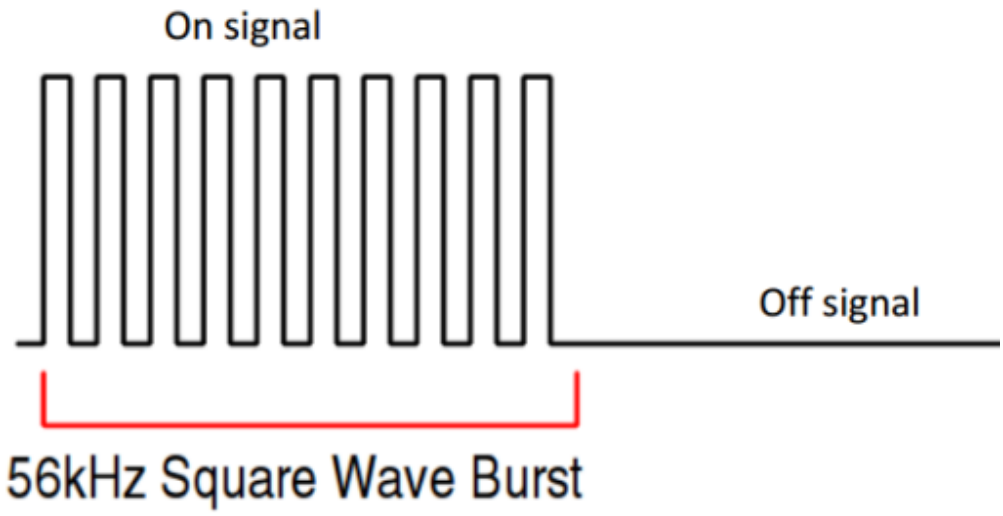
MIRP Protocol

The MIRP protocol is an IR data transmission of packets to signal to other MAGE devices.



An IR packet is composed of 600 cycles of 56 kHz square wave bursts at an IR wavelength of 940 nm. One cycle corresponds to one period (approximately 18 microseconds). An “ON” signal is defined as the 56 kHz burst, and an “OFF” signal is defined as no 56 kHz signal.

This is the general formatting of each IR packet being sent with the IR LEDs. Every packet must start with ten “ON” cycles, followed by 2 data envelope ranging from 20 to 70 cycle “ON” cycles, and end with 150 “ON” cycles.

These are the different types of Data Envelope:

Number of ON cycles	Type of packet	Description
20	Damage	Does one damage per packet
30	Healing	Heals for one health per packet

40	Stun	Stuns the device for 100ms per stun packet
50	Reserved	
60	Reserved	
70	Reserved	