

Introduction to the Router Control Protocol

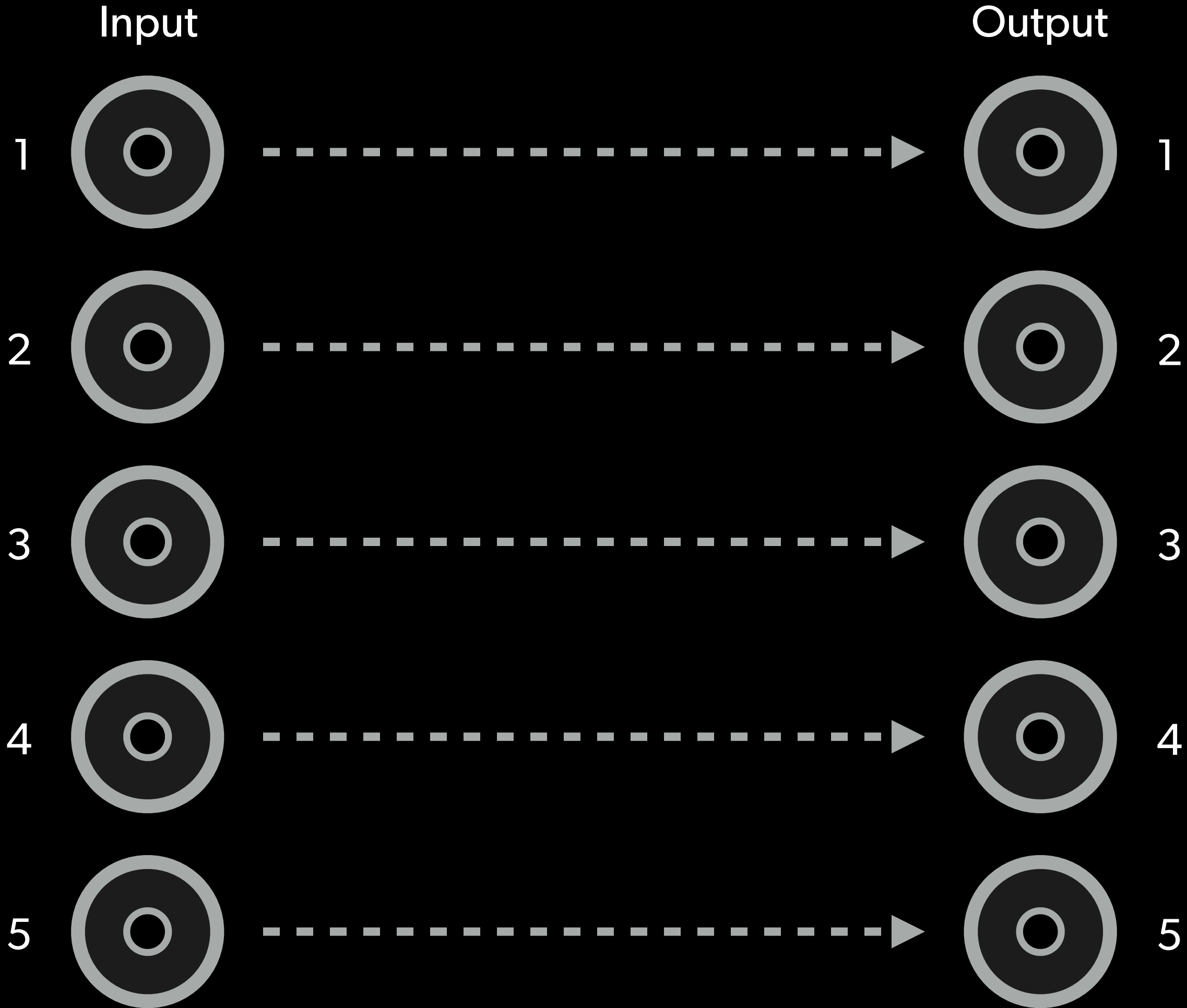


Blackmagicdesign

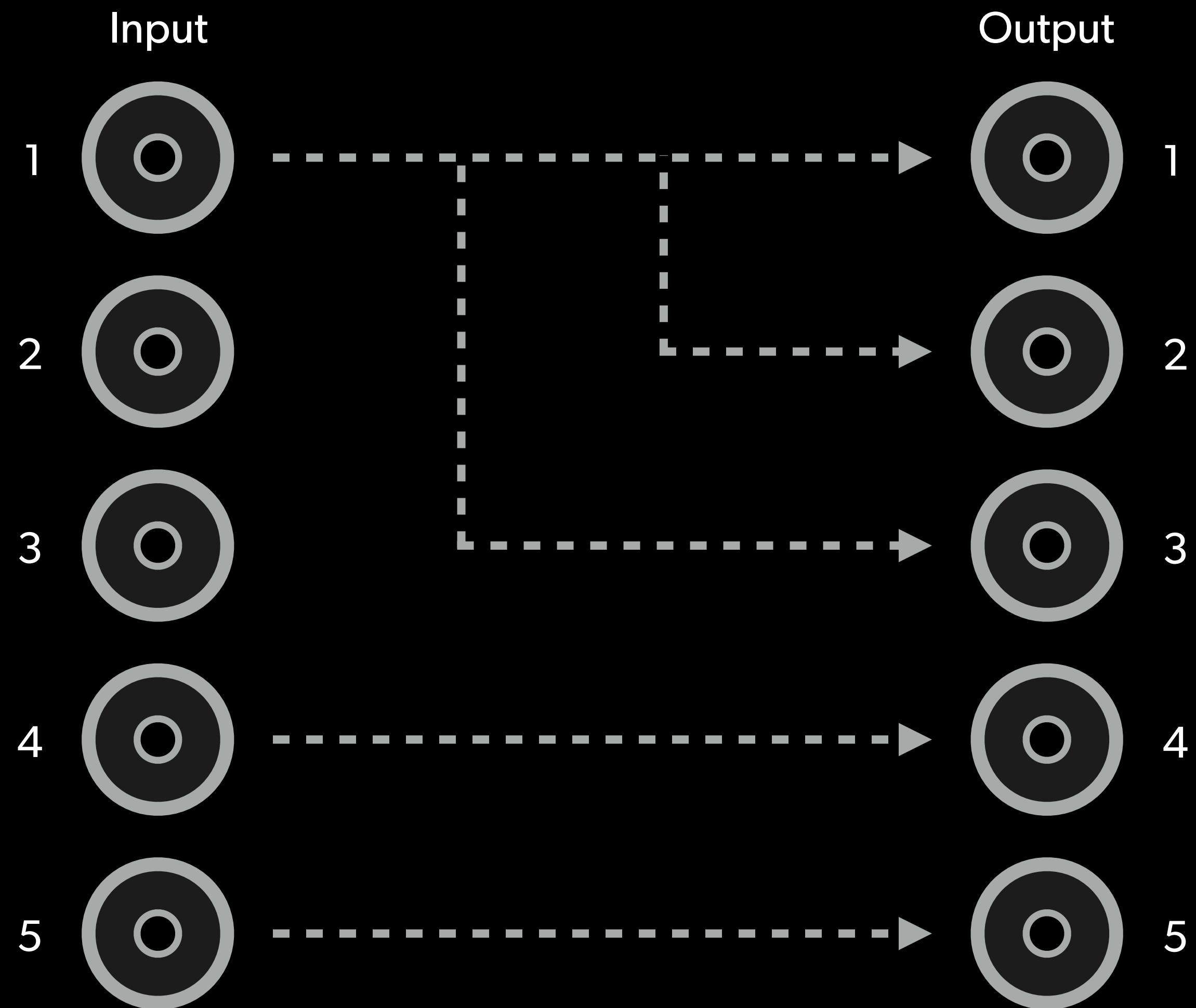


Blackmagicdesign

Videohub Routes



Videohub Routes



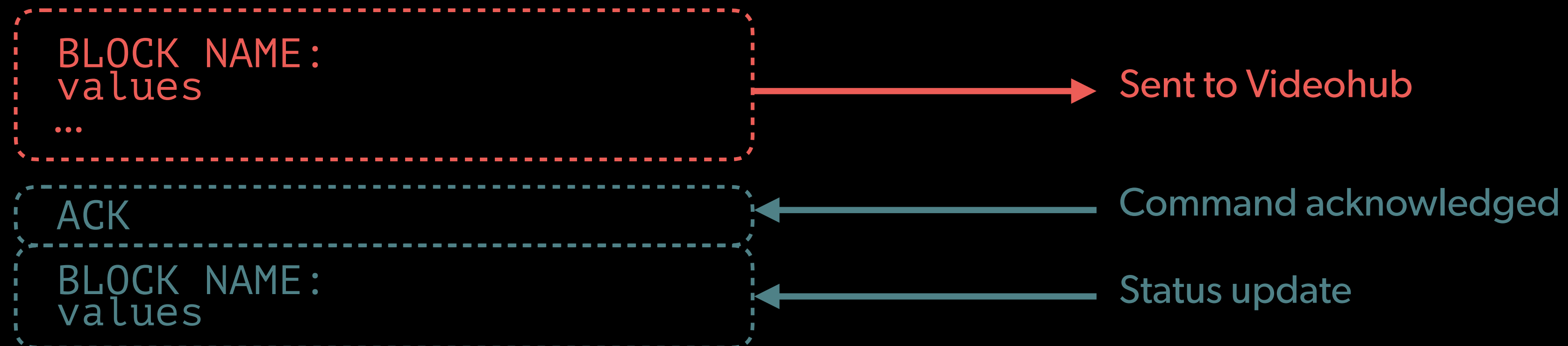
Blackmagic Videohub Control Protocol

Videohub Control Protocol

- TCP network protocol
- Port 9990
- Text Based

Videohub Control Protocol

Command block format



Videohub Control Protocol

- Changing the routes for three outputs

VIDEO OUTPUT ROUTING:

0 0

1 0

2 0

ACK

VIDEO OUTPUT ROUTING:

0 0

1 0

2 0

Videohub Control Protocol

- Changing labels and locks

Videohub Control Protocol

- Getting the current state

Common Uses

Presets

- Copy and paste from text file
- Python script

```
tn = telnetlib.Telnet("192.168.28.249", 9990, 5)
tn.read_until("END PRELUDE:")
tn.write("""video output routing:
0 1
1 7
2 3
3 4
4 7
\n""")
tn.read_until("ACK", 5)
```


Common Uses

CCTV

```
tn = telnetlib.Telnet("192.168.28.249", 9990, 5)
tn.read_until("END PRELUDE:")

nextInput = 0
while True:
    tn.write("video output routing:\n0 %s\n\n" % nextInput)
    tn.read_until("ACK", timeout_seconds)
    time.sleep(1)
    nextInput += 1
    if nextInput > 6:
        nextInput = 0
```

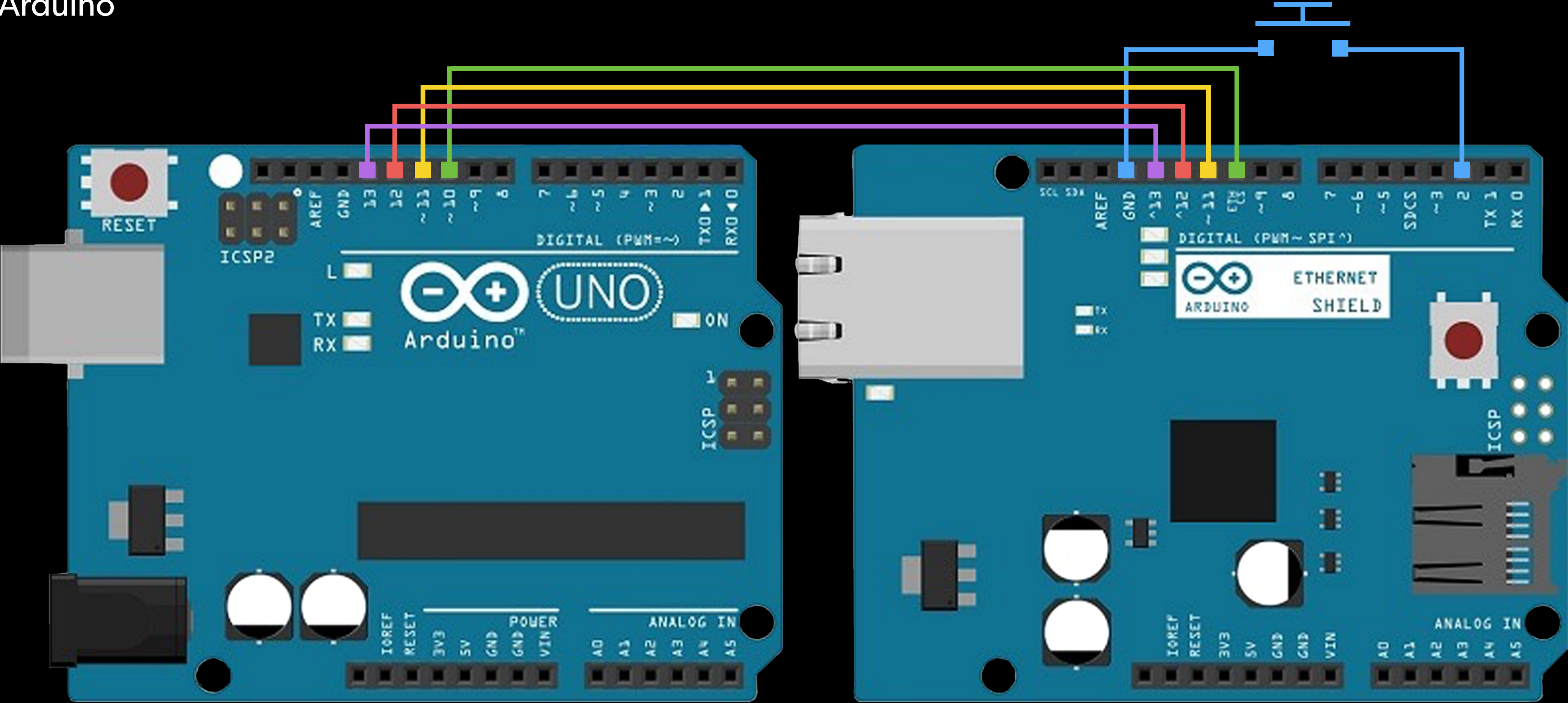
Common Uses

Tally

```
tn = telnetlib.Telnet("192.168.28.249", 9990, 5)
tn.read_until("END PRELUDE:")
routing_regex = re.compile("VIDEO OUTPUT ROUTING:\n(.*)\n\n", re.MULTILINE | re.DOTALL)
while True:
    status = tn.read_until("\n\n")
    match = routing_regex.search(status)
    if match:
        for pair in match.group(1).split("\n"):
            (dst, src) = pair.split()
            if dst == 0:
                if src == 3:
                    print "Turn on Tally"          # GPIO.output(5, GPIO.HIGH)
                else:
                    print "Turn off Tally"         # GPIO.output(5, GPIO.LOW)
```


Common Uses

Arduino



More Information

- Blackmagic Design Developer Support website
- Blackmagic Design Software Development forum
- Developer Support email - developer@blackmagicdesign.com

