

## Overview

Diagnostic imaging is a powerful tool used to assist doctors with assessing a patient's condition and planning for the proper treatment or procedure. Modern operating rooms contain a medical imaging unit in an attached room which can be operated from an adjacent diagnostic imaging center. The images are routed from the diagnostic imaging center to the surgeons in the operating room, allowing them to assess the patient during a surgical procedure. Audio reinforcement systems are also very popular in most auditoriums to assist with addressing a large number of audience members.



## How do Cables To Go solutions fit into this type of application?

Applications where conduit is present can overcome this challenge by using our RapidRun® modular cabling solution, which eliminates the need for field termination. Digital signals such as HDMI® and DVI-D can be run at distances up to 100ft away while achieving 1080P resolution with our unique active terminations. Dual monitor applications can add our 2-port DVI-D splitter extender which supports resolutions as high as 1920X1080 while maintaining signal integrity up to 30ft away.

## Diagnostic Imaging Solution Example

A hospital plans on renovating its existing operating rooms to include MRI machines to assist surgeons with verifying successful completion of complex procedures. Each setup will include a room dedicated to storage of the MRI machine and a separate diagnostic room to monitor and control the unit. Images from the scan need to be routed to the operating room monitors for the surgeons to review. The cabling will need to be installed in a conduit 50ft in length from the diagnostic room to the operating room.



## Solution Overview

The solution we recommend is our digital RapidRun® modular cabling system using a 50ft runner cable (#42405), a passive DVI-D wall plate in the diagnostic room (#42425) and a DVI-D active wall plate (#42428) in the operating room. Digital video from the computer in the diagnostic room will be carried over a half meter DVI cable (#40294) and connected to the input of a 2-port DVI-D splitter extender (#40312). One of the splitter's outputs is connected to the RapidRun passive DVI-D wall plate (#42425) using a one meter DVI cable (#40295), while the remaining output is connected to a local monitor using a two meter DVI cable (#40296). The monitor in the operating room will be connected from the active DVI-D

## Solution Components

**Description:** TruLink® 2-Port DVI-D Splitter with HDCP™

**Application:** Splits a single digital video output from the diagnostic computer

**Part number:** 40312

**Quantity:** 1



**Description:** 50ft RapidRun Digital High Speed Runner Cable

**Application:** Digital cable installed in 50ft conduit from diagnostic room to the operating room

**Part number:** 42405

**Quantity:** 1



**Description:** RapidRun Digital DVI-D Passive Wall Plate - White

**Application:** Wall plate located in diagnostic room near computer terminal

**Part number:** 42425

**Quantity:** 1



**Description:** RapidRun Digital DVI-D Active Wall Plate - White

**Application:** Wall plate located in operating room near monitor

**Part number:** 42428

**Quantity:** 1



**Description:** Decorative Single Gang Wall Plate - White

**Application:** Wall plate covers for each RapidRun wall plate

**Part number:** 03725

**Quantity:** 2



**Note:** The solution described above is one of many connectivity solutions that Cables To Go can provide. For additional information on solutions for your particular application, please contact us.



### Solution Components

**Description:** 0.5m SonicWave™ DVI Digital Video Cable (1.6ft)  
**Application:** Cable from diagnostic room computer to the 2-port DVI splitter  
**Part number:** 40294  
**Quantity:** 1



**Description:** 1m SonicWave DVI Digital Video Cable (3.2ft)  
**Application:** Cable for each DVI-D wall plate connection  
**Part number:** 40295  
**Quantity:** 2



**Description:** 2m SonicWave DVI Digital Video Cable (6.5ft)  
**Application:** Cable from 2-port splitter to local monitor in diagnostic room  
**Part number:** 40296  
**Quantity:** 1



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# Application Note - Education Diagnostic Imaging Room Connectivity Solutions

